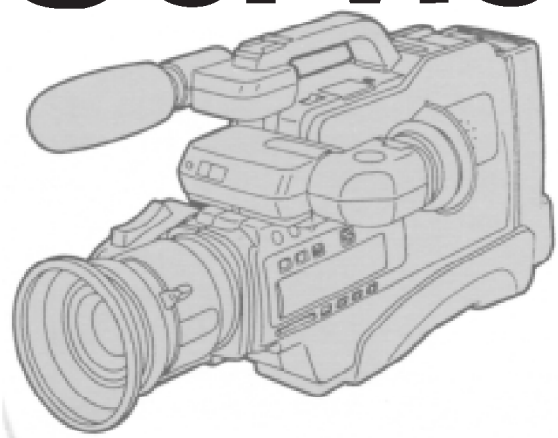
ORDER NO. VMD9601M106

Service Manual

Panasonic S-VHS VHS PAL 625

Hi-Fi HQ

S-VHS Movie



NV-MS5EG/B/A
NV-M9500EN

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  - Frame & casing parts section (1)\корпус и шасси (секция 1)
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  - EVF section\секция видоискателя
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Panasonic

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SPECIFICATIONS

ITEM	SPECIFICATION	ITEM	SPECIFICATION
Power	Source: BATTERY; DC 12V Consumption; Recording mode: 8.8W (Battery operation)	VIDEO	HEADS: 4 rotary heads, 1 flying erase head
			OUTPUT: PHONE CONNECTOR; 1.0Vp-p 75Ω unbalanced S-VIDEO OUT Terminal; 1.0Vp-p 75Ω unbalanced
VIDEO RECORDING SYSTEM	4 rotary heads, helical scanning system PAL		
TAPE FORMAT	S-VHS/VHS Cassette Tape (Tape width 12.7mm)	AUDIO	HEAD: 1 Stationary head (Normal Audio) 4 rotary heads; 2 channels (Hi-Fi Sound-Stereo)
TAPE SPEED	23.39mm/s Record/Playback Time 240min. with NV-E240 FF/REW Time less than 12min. with NV-E180		INPUT: MIC IN (M3); −70dB, 4.7kΩ or more unbalanced
			OUTPUT: PHONE CONNECTOR; −6dB, 47kΩ unbalanced
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)	WEIGHT	Approx. 2.8kg (without Battery Pack)
	STANDARD ILLUMINATION: 1,400 lux	DIMENSIONS	130 (W)×245 (H)×476 (D) mm
	MINIMUM REQUIRED ILLUMINATION: 4 lux (Low Light Mode)	STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack 1 pc. Shoulder Strap 1 pc. AV Output Cable 1 pc. DC Input Cable 1 pc. Battery Pack Charging Connector 1 pc. S-Video Cable 1 pc. System Carrying Case 1 pc. 21 Pin Adaptor
	LENS: 12 : 1 Power Zoom Lens with 2 zooming speeds and Digital AI Auto Focus: Focal Length 5.6–67mm F1.6 Auto Iris/Manual Iris Filter Diameter 49mm		
	IMAGE SENSOR: 1/3 inch CCD Image Sensor		
	VIEW FINDER : 0.7" Electric View Finder		

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Technical Information

Service caution

1–1. Service Extension Cables

Use the following extension cables when checking or adjusting the individual circuit boards.

	PART NBR	PART NAME	CONNECTION	Q'TY
1	VFK0667	30 PIN EXTENSION CABLE	MAIN C.B.A. B3001~PROCESS C.B.A. PP302	1
2	VFK0724	32 PIN EXTENSION CABLE	SENSOR C.B.A. B201~PROCESS C.B.A. PP301	1
3	VFK0783	12 PIN EXTENSION CABLE	CCD UNIT~SENSOR C.B.A. B202	1
4	VFK0802	24 PIN FLAT CABLE	LENS UNIT~PROCESS C.B.A. FP701	1
5	VFK0823	6 PIN FLAT CABLE	PROCESS C.B.A. FP301~CAMERA OPERATION C.B.A. FP6701	1
6		14 PIN EXTENSION CABLE	MAIN C.B.A. PS3002~TBC C.B.A. PP3501	1

How to use extension cables.

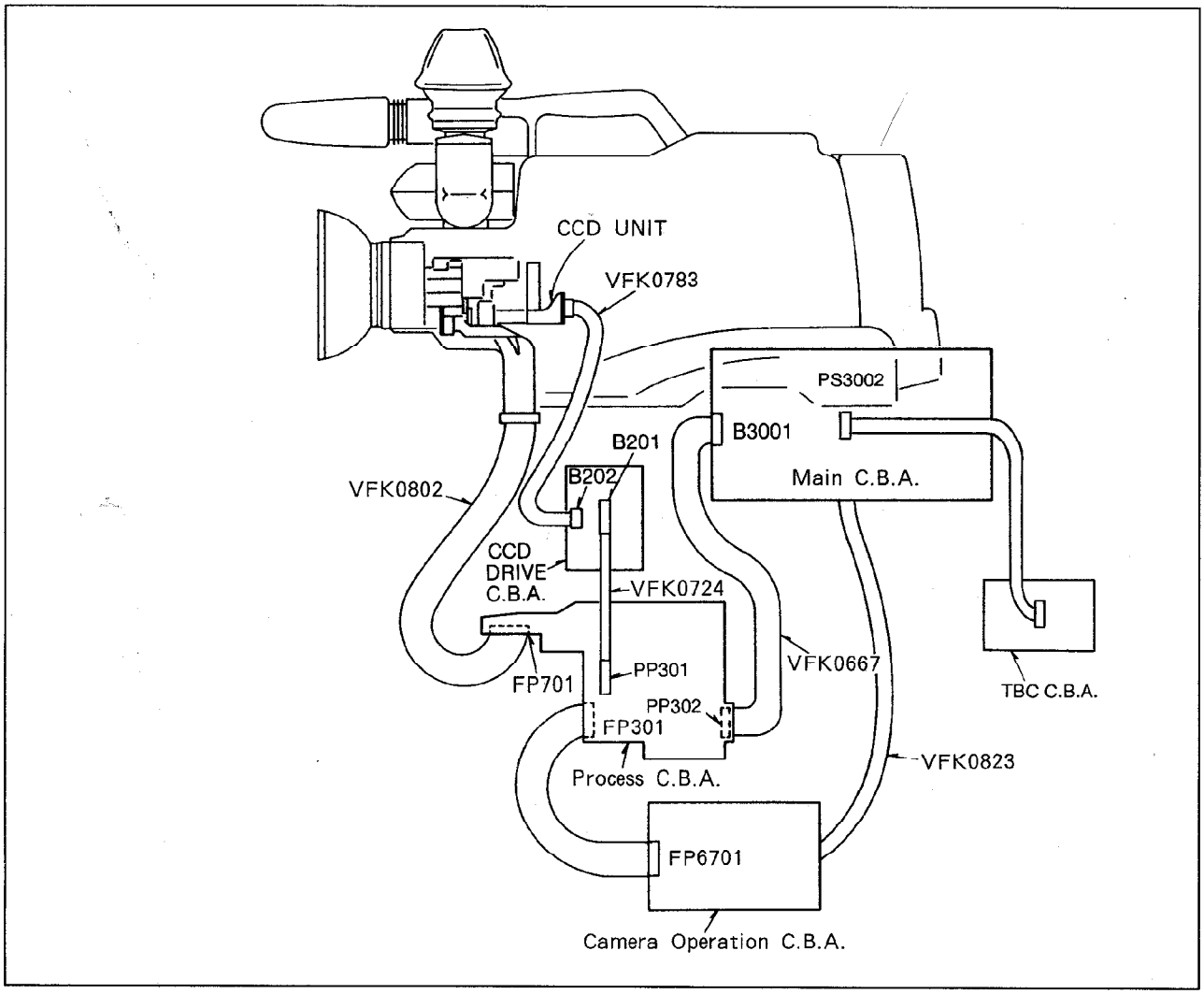
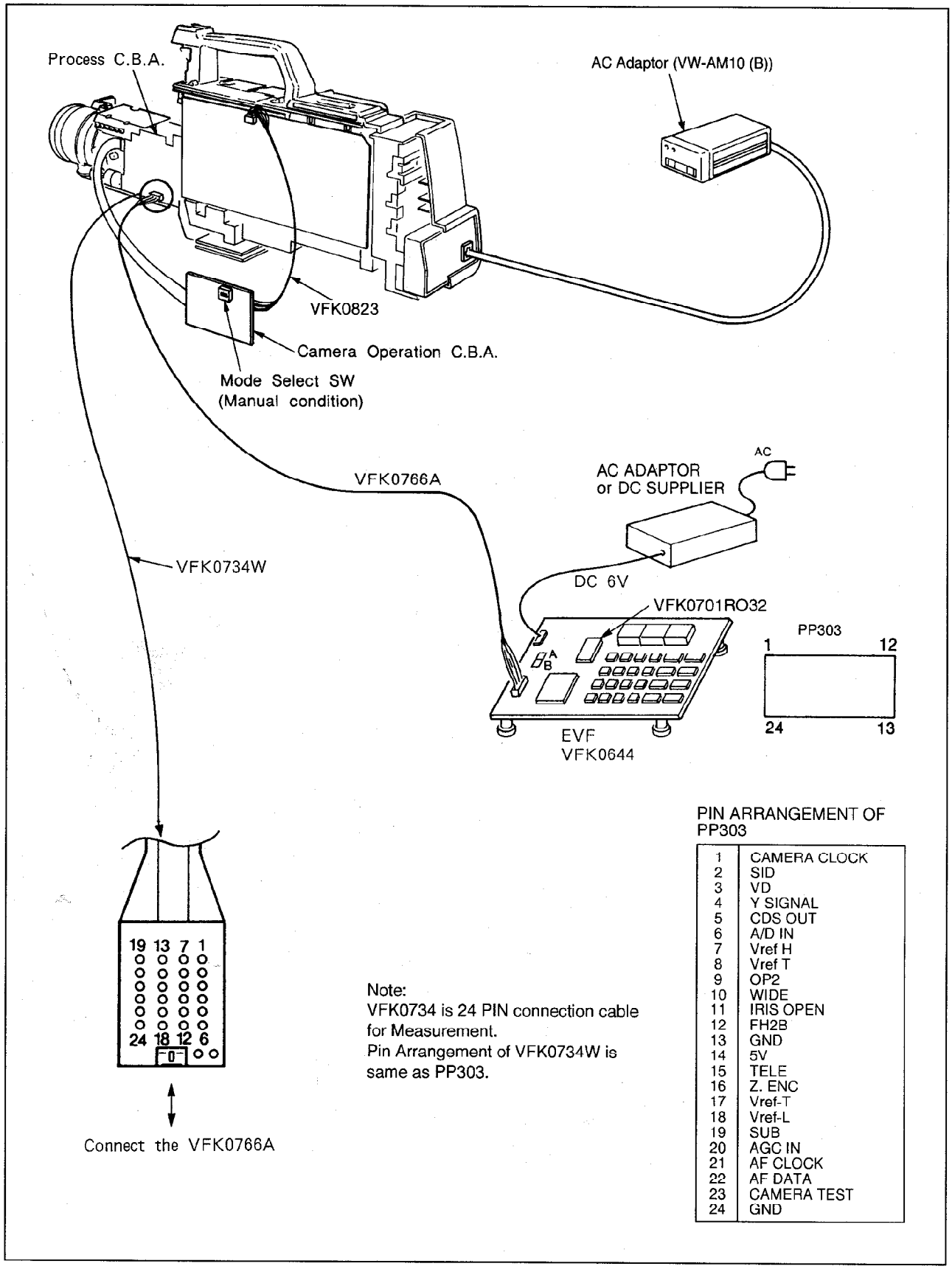


Fig. T1–(a)



Note:
VFK0734 is 24 PIN connection cable for Measurement.
Pin Arrangement of VFK0734W is same as PP303.

PIN ARRANGEMENT OF PP303

1	CAMERA CLOCK
2	SID
3	VD
4	Y SIGNAL
5	CDS OUT
6	A/D IN
7	Vref H
8	Vref T
9	OP2
10	WIDE
11	IRIS OPEN
12	FH2B
13	GND
14	5V
15	TELE
16	Z. ENC
17	Vref-T
18	Vref-L
19	SUB
20	AGC IN
21	AF CLOCK
22	AF DATA
23	CAMERA TEST
24	GND

Fig. T1–(b)

2. Self–diagnostic system and service mode

2–1. General

This Movie camera has a self–diagnostic system which faclitates quick trouble shooting.
Pressing the START/STOP Switch and Memory switch simultaneously, same time turn on the Power Switch, After that, unit into Service mode.

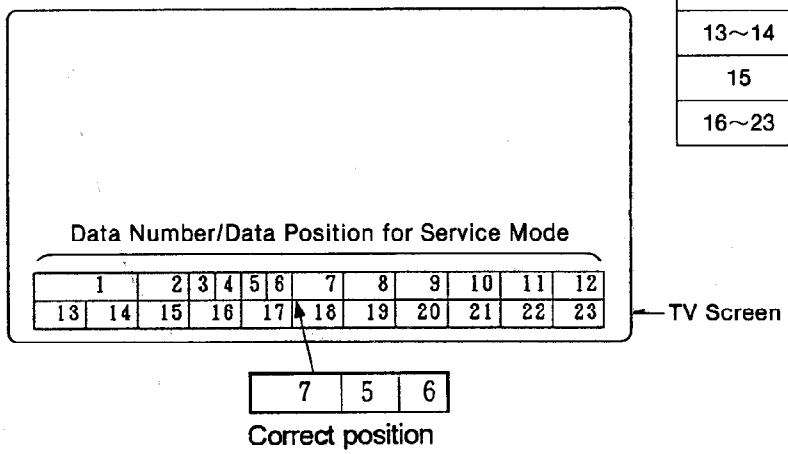
2–2. Service Mode

This Movie camera is possible to see RAM data of IC6004 on the TV screen or EVF.
How to read the RAM data is shown in Fig.T2.
All data is displayed in the Hexadecimal Number. (letters and number 0 or F)

Note:
Pressing the START/STOP Switch and Memory switch simultaneously, same time turn on the power switch.
After that this Movie camera Shows data 1 to data 23 on TV screen as shown in Fig.T2–T10.

DATA NUMBER	DATA CONTENTS
1	Data Number 1 is position that indicates Motor conditions data
2~4	Not used
5	Data Number 5 is position that indicates Mechanism positions data
6	Data Number 6 is position that indicates tape condition
7	Data Number 7 is position that indicates key operation informations
8	Data Number 8 is position that indicates I/O condition of IC6004 PIN 118~PIN 125
9	Data Number 9 is position that indicates I/O condition of IC6004 PIN 7~PIN 14
10	Data Number 10 is position that indicates I/O condition of IC6004 PIN 29~PIN 37
11~12	Data Number 11~12 are position that indicates Battery Voltage level
13~14	Not used
15	Not used
16~23	Not used

Fig.T2



2-3. Detail of Data for Service Mode

(1) Data Number 1:
If Data 1 indicate "CYL", There is possibility that cylinder Motor is locked up.

INDICATION AT POSITION 1	CONDITION OF MOTOR
TRL	REEL is locked up
UNLD	Unloading condition
LOAD	Loading condition
CYL	Cylinder Motor is locked up

Fig.T3

(2) Data Number 5:
If Data 5 indicate "01", Mechanism is Eject position.

INDICATION AT POSITION 5	MECHANISM CONDITION
1	EJECT
2	EJECT
3	STOP
4	----
5	S-LOAD
6	----
7	PRE-PAUSE
8	----
9	PAUSE
A	----
B	REVIEW
C	----
D	PLAY

Fig.T4

(3) Data Number 6:
If Data 6 indicate "A", There is possibility that sensor detect the tape end.

INDICATION AT POSITION 6	TAPE CONDITION
0	Normal condition
3	There is no video cassette inside
9	Detect the begining of Tape
A	Detect the Tape end

Fig.T5

(4) Data Number 7:
When the pushed STOP key, Data 7 indicate

INDICATION AT POSITION 7	KEY OPERATION
00	STOP
01	EJECT
02	REWIND
03	FF
04	REVIEW
05	CUE
06	PAUSE
08	REC
09	A. DUB
0A	PLAY
0C	F. ADV
54	COUNTER CLEAR
55	COUNTER MEMORY
57	OSD ON/OFF
67	DATE ON/OFF
9F	EDIT
B1	TRACKING UP
B2	TRACKING DOWN
B3	INSERT
CC	START/STOP
FF	NOP

Fig.T6

(5) Data Number 8:

INDICATION AT POSITION 8	I/O PORT CONDITION FOR I6004
80	Loading Command is output (PIN 125)
40	Unloading Command is output (PIN 124)
20	Not use
10	Audio Mute "H" is output (PIN 122)
8	Not use
4	Audio EE "H" is output (PIN 120)
2	Video EE "H" is output (PIN 119)
1	PB "L" is output (Pin 118)

Fig.T7

(6) Data Number 9

INDICATION AT POSITION 9	I/O PORT CONDITION FOR IC6004
80	SENSOR LED "L" Command is output (IC6004 PIN 14)
40	REMOCON LED "L" Command is output (IC6004 PIN 13)
20	TALLY LED "L" Command is output (IC6004 PIN 12)
10	POWER LED "L" Command is output (IC6004 PIN 11)
8	CYLINDER ON "L" Command is output (IC6004 PIN 10)
4	FULL ERASE ON Command is output (IC6004 PIN 9)
2	CAMERA P. ON Command is output (IC6004 PIN 8)
1	POWER ON Command is output (IC6004 PIN 7)

Fig.T8

(7) Data Number 10

INDICATION AT POSITION 10	I/O PORT CONDITION FOR IC6004
80	DC LIGHT ON Command is output (IC6004 PIN 37)
40	X. TAL ON Command is output (IC6004 PIN 36)
20	——
10	——
8	——
4	——
2	——
1	——

Fig.T9

(8) Data Number 11 and 12

INDICATION AT POSITION 11	INDICATION AT POSITION 12	BATTERY VOLTAGE LEVEL
00~03	10	Less than 10.5 Volt
04~0A	8	10.5~11.0 Volt
0B~0A	4	11.0~11.5 Volt
11~17	2	11.5~12.0 Volt
18~	1	More than 12.0 Volt

Fig.T10

SECTION 2
MAINTENANCE & ADJUSTMENT PROCEDURES

2 - 1. MAINTENANCE CHART

REGULAR MAINTENANCE

The purpose of periodic maintenance is to preserve the functioning of this machine throughout its useful life. The user or service dealer should perform these maintenance regularly to ensure that maximum utility is obtained from the machine.

The VCR is a complicated place of equipment. It contains many belts, rollers, heads etc., which become worn, and deterlorate as time goes by, causing trouble. Dust and dirt will also impede the proper functioning of the machine. In light of this, it is very important that overall maintenance be done according to the maintenance chart to maintain the functions of the VCR, and to avoid accidental problems. This maintenance should also be performed after any repairs are done on the equipment.

The VCR used for business applications requires particular attention for several reasons. The installation conditions and applications are not always the best. Long use times, or poor environmental conditions may adversely affect the lifespan and performance of the machine. Regular maintenance assures that the purchaser obtains the maximum value for his expenditure. Accordingly, the necessity of regular maintenance should be fully explained at the time of sale, as well as during after-sale repairs.

MAINTENANCE CHART

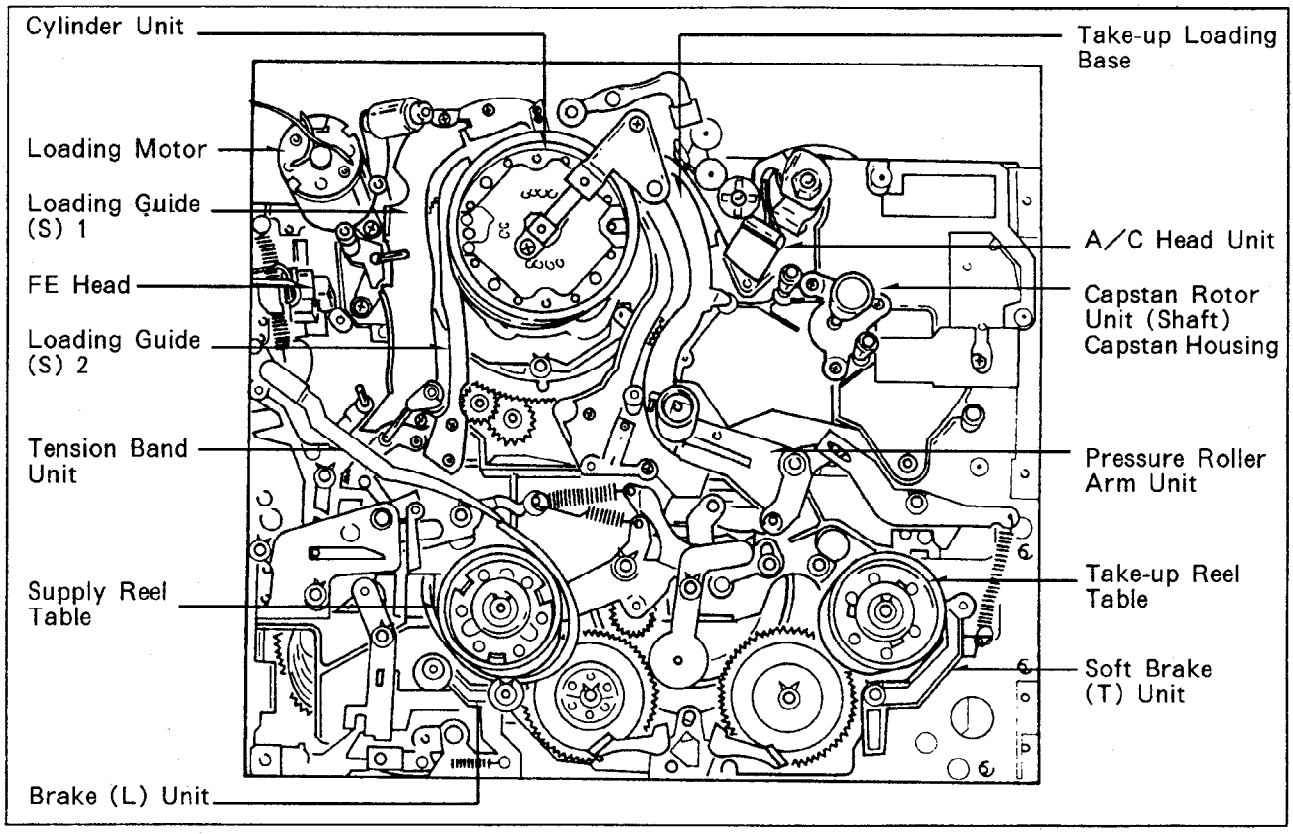
The following periodic maintenance is required to prolong the life of the machine.

Ref. No. IN P/L	Parts Name	Hour										Ref. No. IN P/L	Parts Name	Hour									
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000			500	1000	1500	2000	2500	3000	3500	4000	4500	5000
—	Tape Transporters	●	●	●	●	●	●	●	●	●	●	253 (2)	Brake (R) Unit				◎				◎		
257 (2)	A/C Head Unit	●	●	●	●	●	●	●	◎	●	●	247 (2)	Tension Band Unit				◎				◎		
282 (2)	FE Head	●	●	●	●	●	●	●	◎	●	●	141 (1)	Loading Belt				◎				◎		
140 (1)	Cylinder Unit	●	◎	●	◎	●	◎	●	◎	●	◎	166 (1)	Capstan Belt				◎				◎		
123 (1)	Supply Reel Table	●	●	●	●△	●	●	●	●△	●	●△	242 (2)	Loading Motor Unit				◎				◎		
126 (1)	Takeup Reel Tuble	●	●	●	●△	●	●	●	◎△	●	●	236 (2)	Take-up Loading Base					■					■
164 (1)	Capstan Rotar U(Shaft)	●	●△	●	●△	●	●△	●	●△	●	●△	219 (2)	Loading Guide (S)(1)					■					■
274 (2)	Pinch Roller Arm(1) U	●	◉	●	◎	●	◉	●	◎	●	◉	220 (2)	Loading Guide (S)(2)					■					■
254 (2)	Brake (L) Unit				◎				◎			—	Cam Gear Section and Hyper Pressure Section (Between Metal)								■		

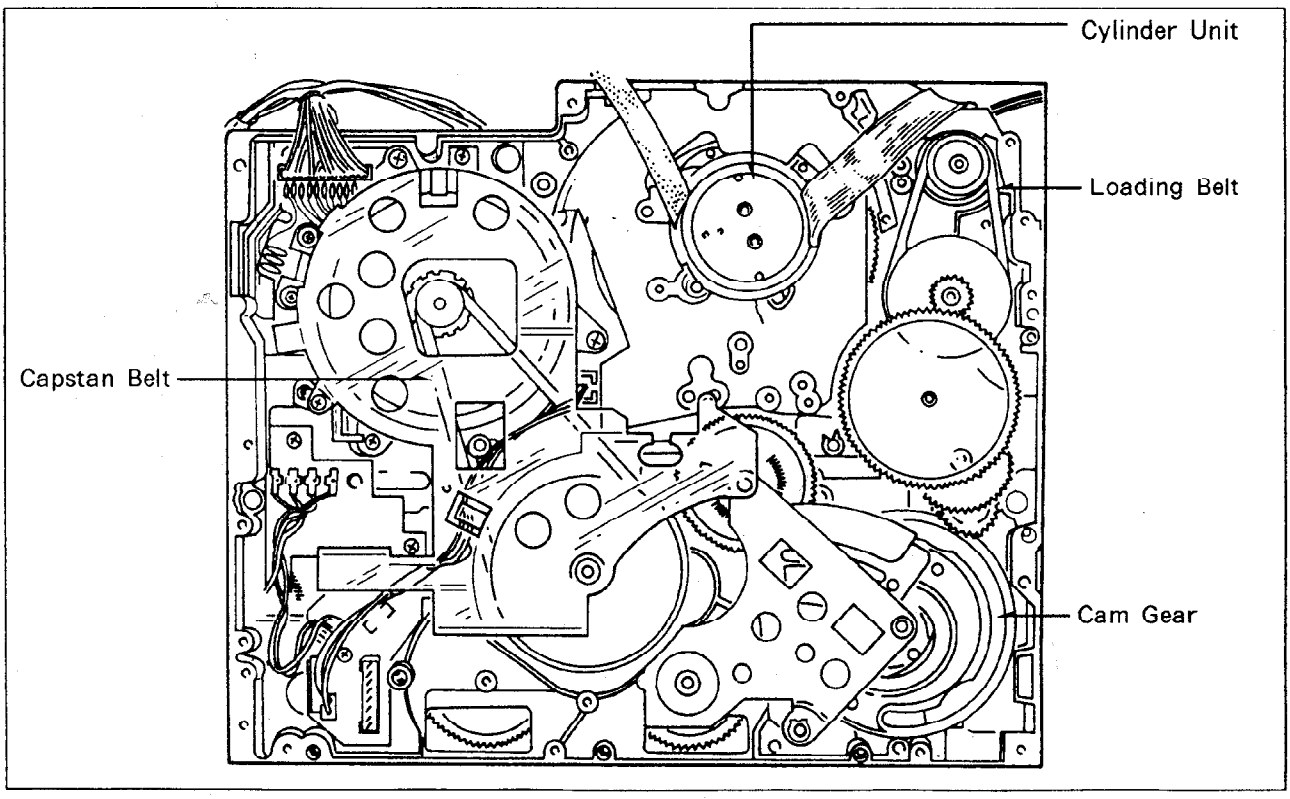
*** NOTE:**

Symbol	Maintenance	Requirement	Remark
●	Cleaning	Ethyl-alcohol or Cleaning Liquid (Purchase locally)	Wipe dirt from the parts using soft cloth impregnated with Ethyl-Alcohol. Note: When cleaning rubber parts, avoid using excessive alcohol since it may accelerate deterioration of these parts. After cleaning with alcohol, wipe the alcohol quickly and thoroughly.
◎	Replacement	———	———
◉	Replacement (in case)	———	if the regular cleaning has not been done.
△	Lubrication	Hydro HV100 Oil (VFK0131)	Supply one or two drops of oil.
■	Greasing	Molytne Grease (MOR265)	Wipe the old grease and apply new grease.

2-2. MECHANICAL PARTS LOCATION



TOP VIEW

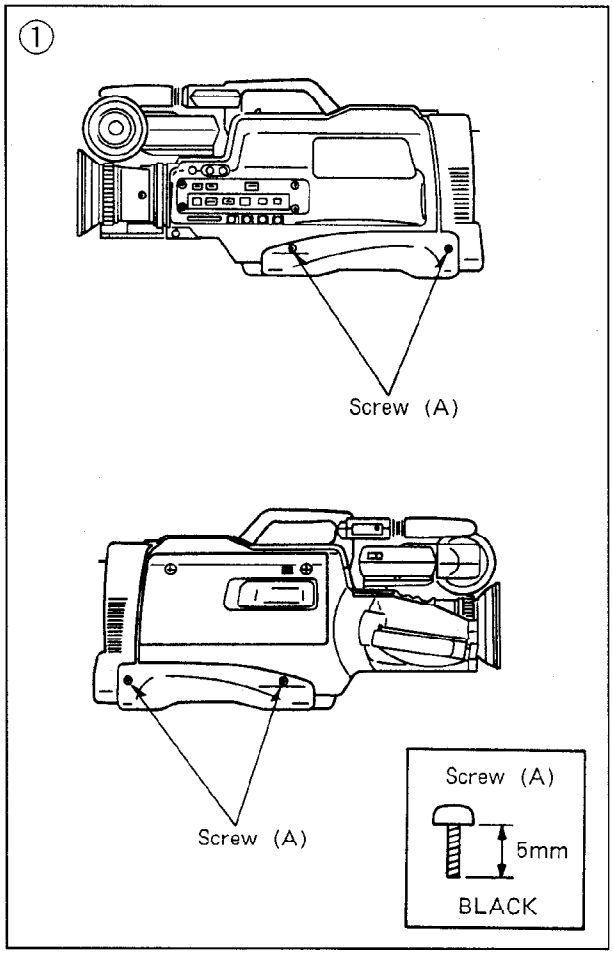


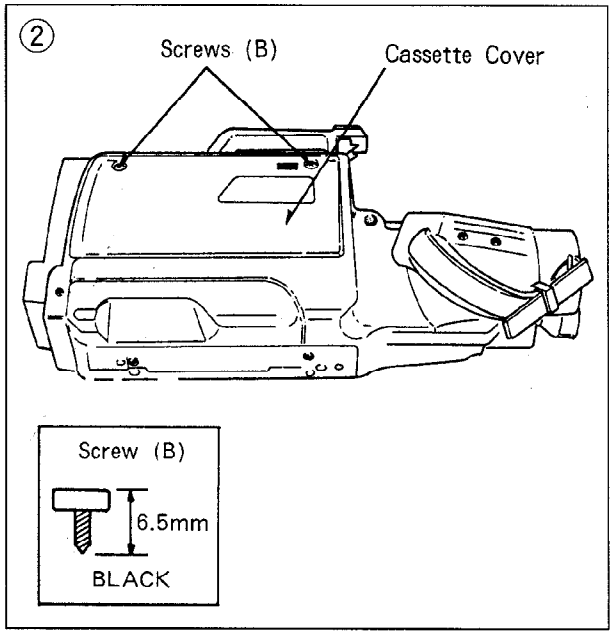
BOTTOM VIEW

2-3. DISASSEMBLY PROCEDURES

Flow-Chart for Disassembly Procedure

NBR	ITEM/PART	Fig.	Removal (SCREW)
[1]	Shoulder Pad/ Lens Hood	①	4-SCREW (A) Pull the shoulder pad. Remove the lens hood (By rotating counter-clockwise.)
[2]	Cassette Cover	②	2-SCREW (B)
[3]	MIC Unit	③	2-SCREW (C/D) Slide the MIC unit. Disconnect (Connector on the MIC unit)
[4]	Side Case (R) Unit	③ ④ ⑥	3-SCREW (E) 9-SCREW (F/G/H) Lift the side case (R) unit slightly. Disconnect (Connector P4501)
[5]	Side Case (L) Unit	⑤	6-SCREW (B/G/I) Lift the side case (L) unit slightly. Disconnect (Connector on Main C.B.A. and Process C.B.A.)
[6]	Operation Panel Unit	⑥	Disconnect (Flexible connector FP6001)
[7]	Main C.B.A.	⑦	Unlock...2 locking Tabs (O) Disconnect (Connector P3001 and B3001)
[8]	Camera C.B.A.	⑧	1-SCREW (J) Disconnect (Connector FP301 and Flexible connector FP701) Lift up the camera C.B.A. slightly.
[9]	Camera Unit	⑨	2-SCREW (K)
[10]	CCD Drive C.B.A.	⑩	2-SCREW (L) Disconnect (Connector B202)
[11]	Lens Cover	⑪	2-SCREW (M)
[12]	Lens Unit	⑫	3-SCREW (N)
[13]	EVF Unit	⑬ ⑭ ⑮ ⑯	2-SCREW (O) 3-SCREW (P) Lift the CRT Assembly. Rotate... Nut (V) Pull the DY Assembly.





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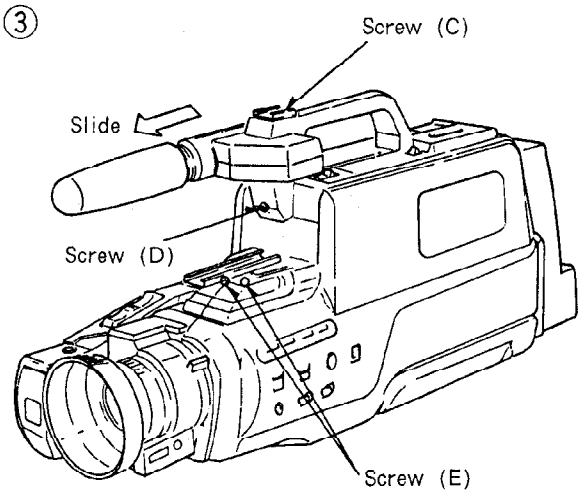
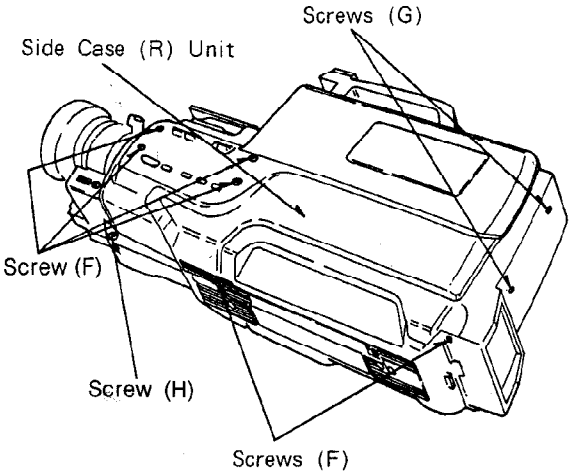


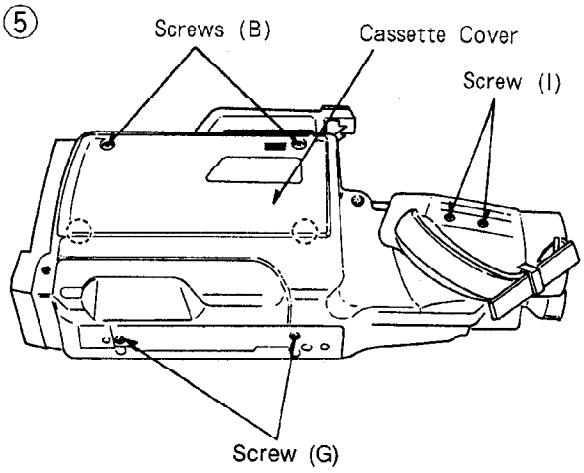
Screw (C)	Screw (D)	Screws (E)
17mm	5mm	17mm
BLACK	BLACK	BLACK

④



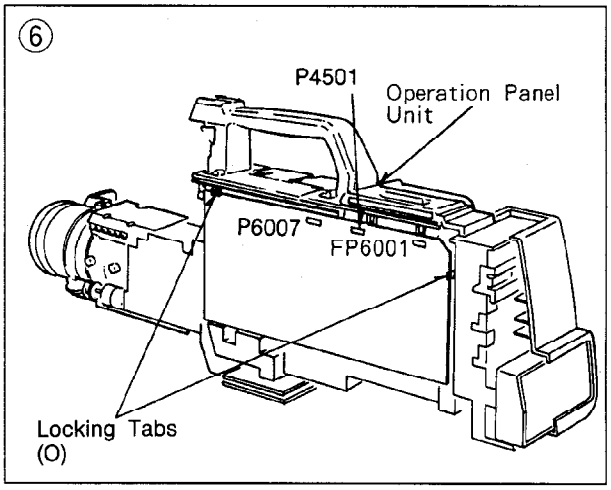
Screw (F)	Screw (G)	Screw (H)
5mm	5mm	10mm
BLACK	BLACK	BLACK

⑤



Screw (B)	Screw (G)	Screws (I)
6.5mm	5mm	27mm
BLACK	BLACK	BLACK

⑥



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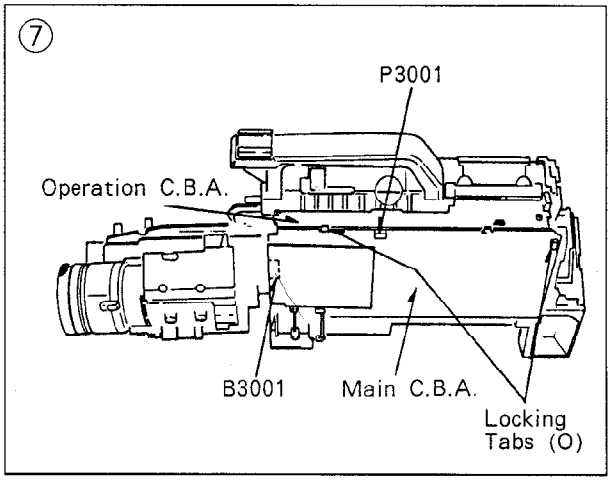

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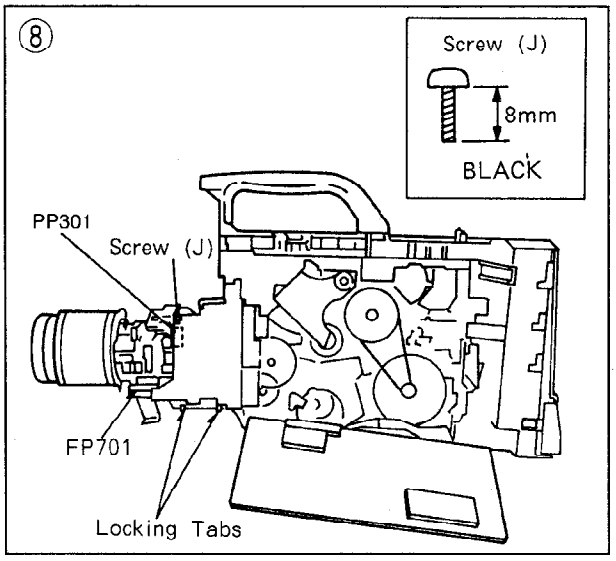
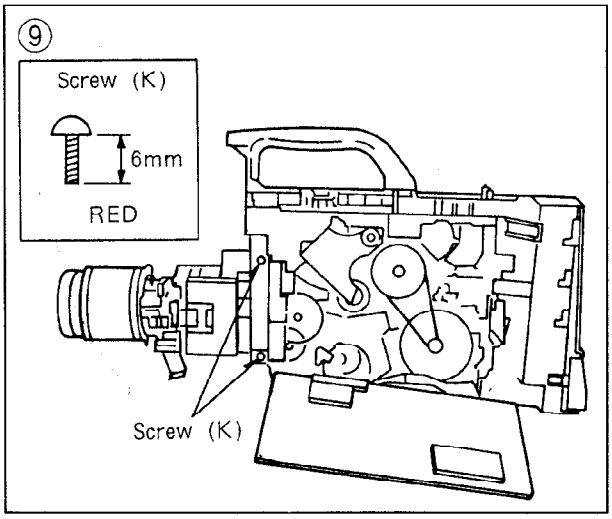
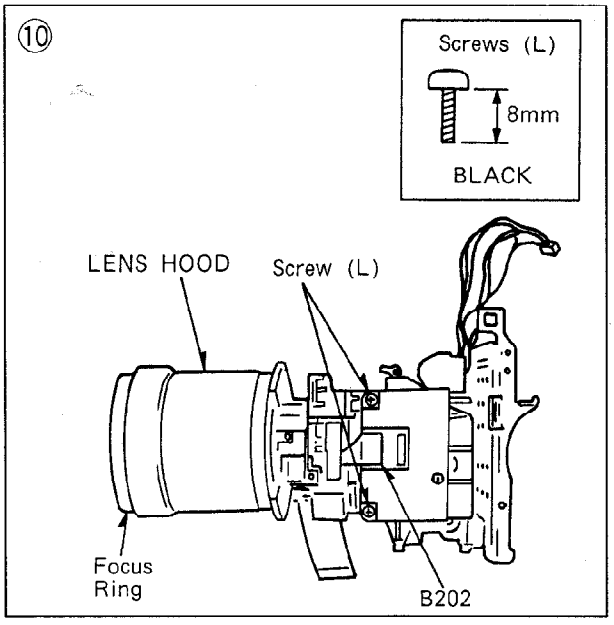

Screw (J)
8mm
BLACK
PP301
Screw (J)
FP701
Locking Tabs

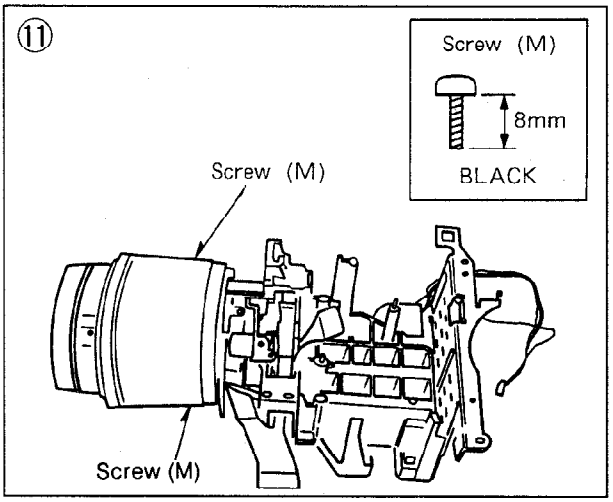
⑨


Screw (K)
6mm
RED
Screw (K)

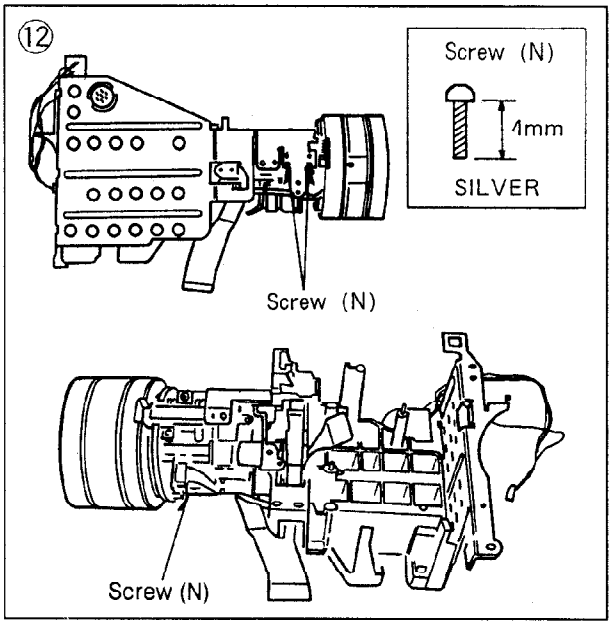
⑩


Screws (L)
8mm
BLACK
LENS HOOD
Screw (L)
Focus Ring
B202

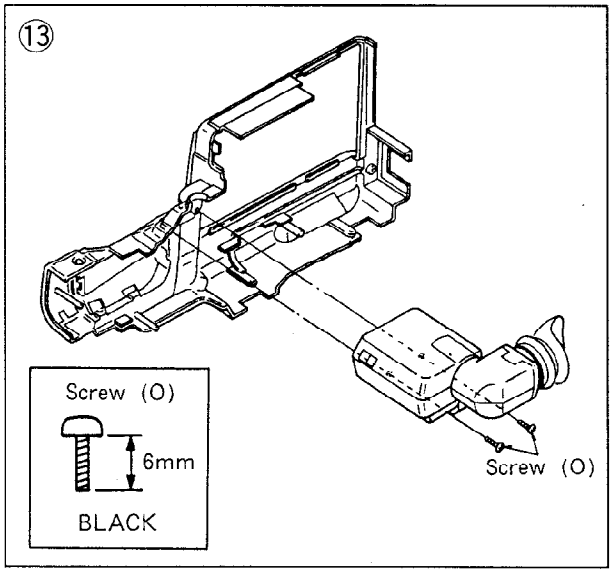
⑪


Screw (M)
8mm
BLACK
Screw (M)
Screw (M)

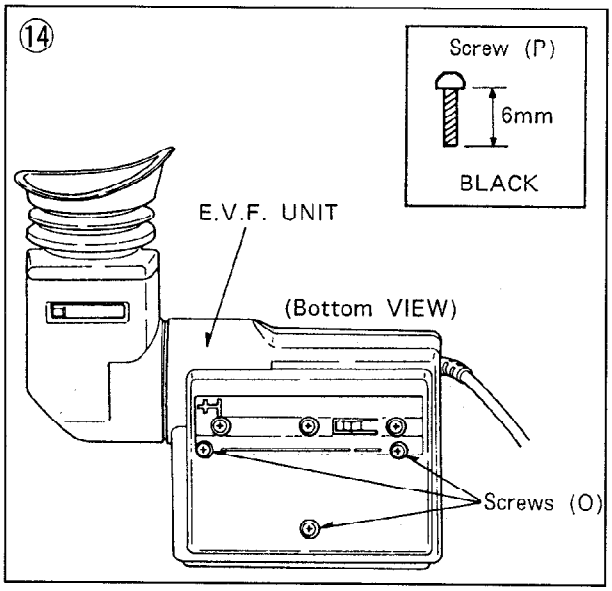
⑫


Screw (N)
4mm
SILVER
Screw (N)
Screw (N)

⑬


Screw (O)
6mm
BLACK
Screw (O)

⑭



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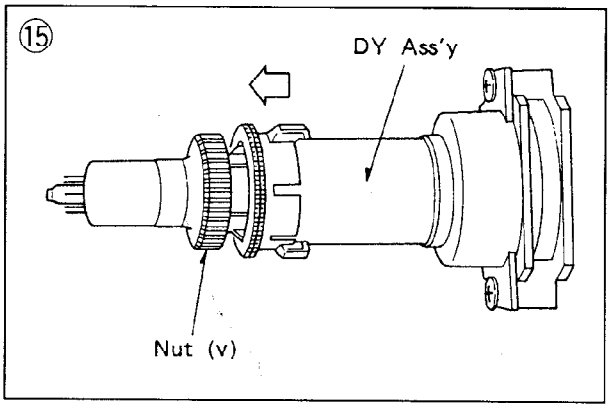
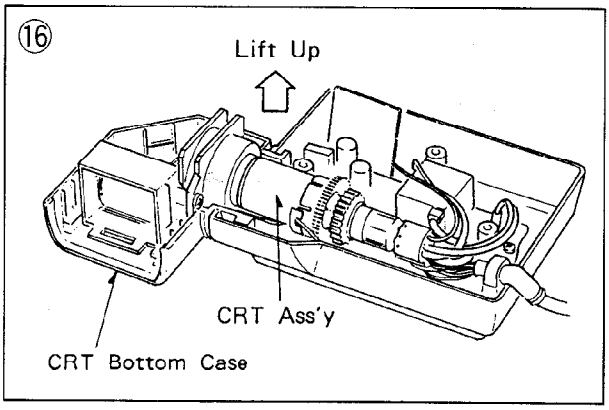


⑯



Battery Replacement

VL2020 size Button Type Battery is necessary for storing the date, time and selected tape speed in the memory, when the Movie Camera is turned off.

How to Exchange the Button Type Battery

Use only a "VL2020" size Button Type Battery.
The VL2020 is manufactured by Panasonic only.

CAUTIONS FOR BATTERY REPLACEMENT

Load the new battery with its polarities (+ and −) correctly aligned.

Remove the spent battery immediately and dispose of it.

Do not try to short-circuit, heat the battery and do not throw it into a fire.

Keep the button-type battery out of reach of children.
If a battery has been swallowed, consult a doctor immediately.

Do not grasp the button-type battery with metallic tweezers because this could short-circuit it.

"THE LITHIUM BATTERY IS A CRITICAL COMPONENT (TYPE NUMBER VL2020 MANUFACTURED BY PANASONIC).

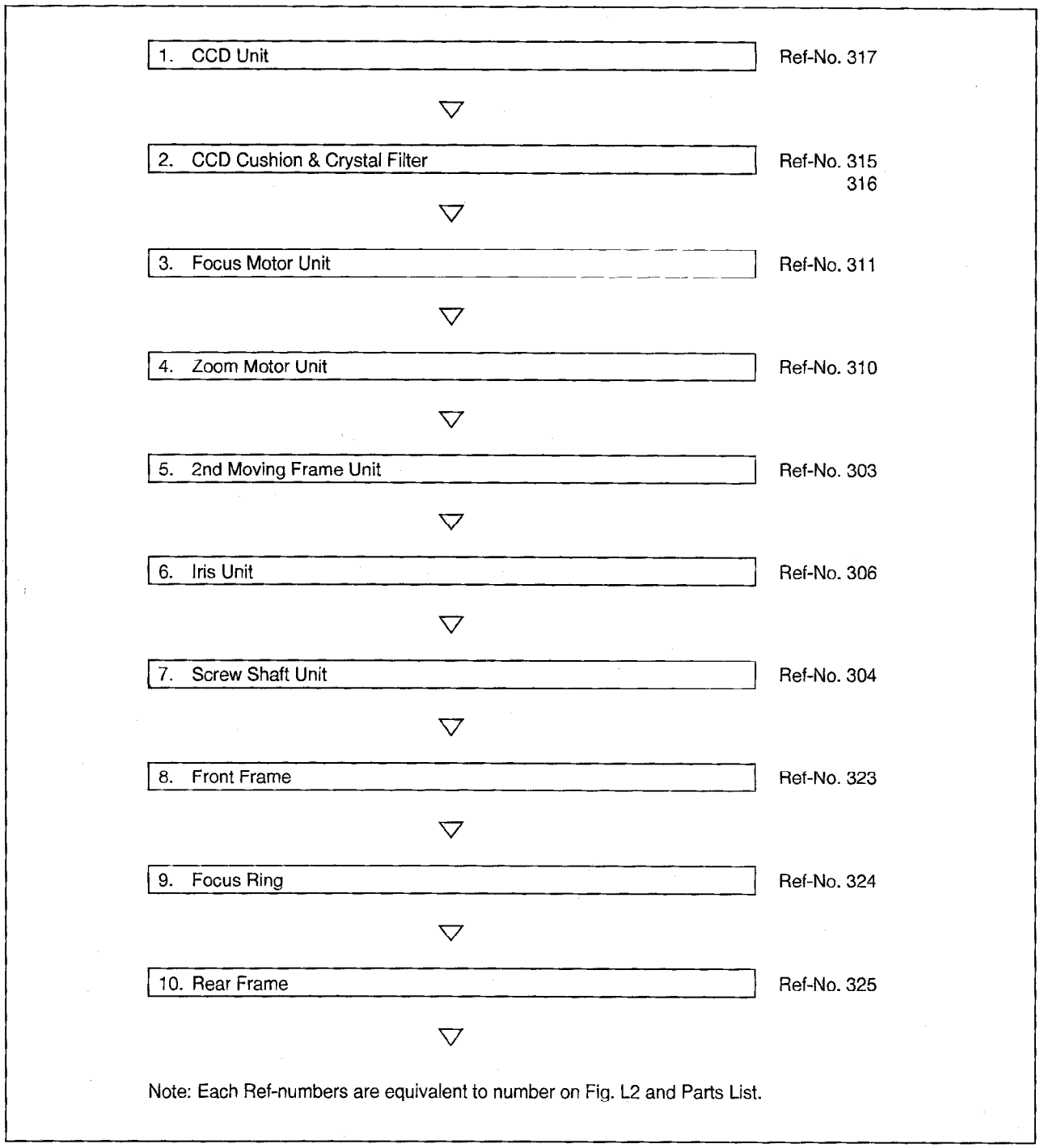
IT MUST NEVER BE SUBJECTED TO EXCESSIVE HEAT OR DISCHARGE. IT MUST THEREFORE ONLY BE FITTED IN EQUIPMENT DESIGNED SPECIFICALLY FOR ITS USE.

REPLACEMENT BATTERIES MUST BE OF THE SAME TYPE AND MANUFACTURER. THEY MUST BE FITTED IN THE SAME MANNER AND LOCATION AS THE ORIGINAL BATTERY, WITH THE CORRECT POLARITY CONNECTIONS OBSERVED.

DO NOT ATTEMPT TO RE-CHARGE THE OLD BATTERY OR RE-USE IT FOR ANY OTHER PURPOSE. IT SHOULD BE DISPOSED OF IN WASTE PRODUCTS DESTINED FOR BURIAL RATHER THEN INCINERATION".

2-3-1. DISASSEMBLY PROCEDURES OF LENS UNIT

The following flowchart describes order or steps for removing the Lens Units and certain printed circuit boards in order to make access to the item needing service.
To reassemble the unit follow the steps in reverse order.



Note: Each Ref-numbers are equivalent to number on Fig. L2 and Parts List.

Fig. L1

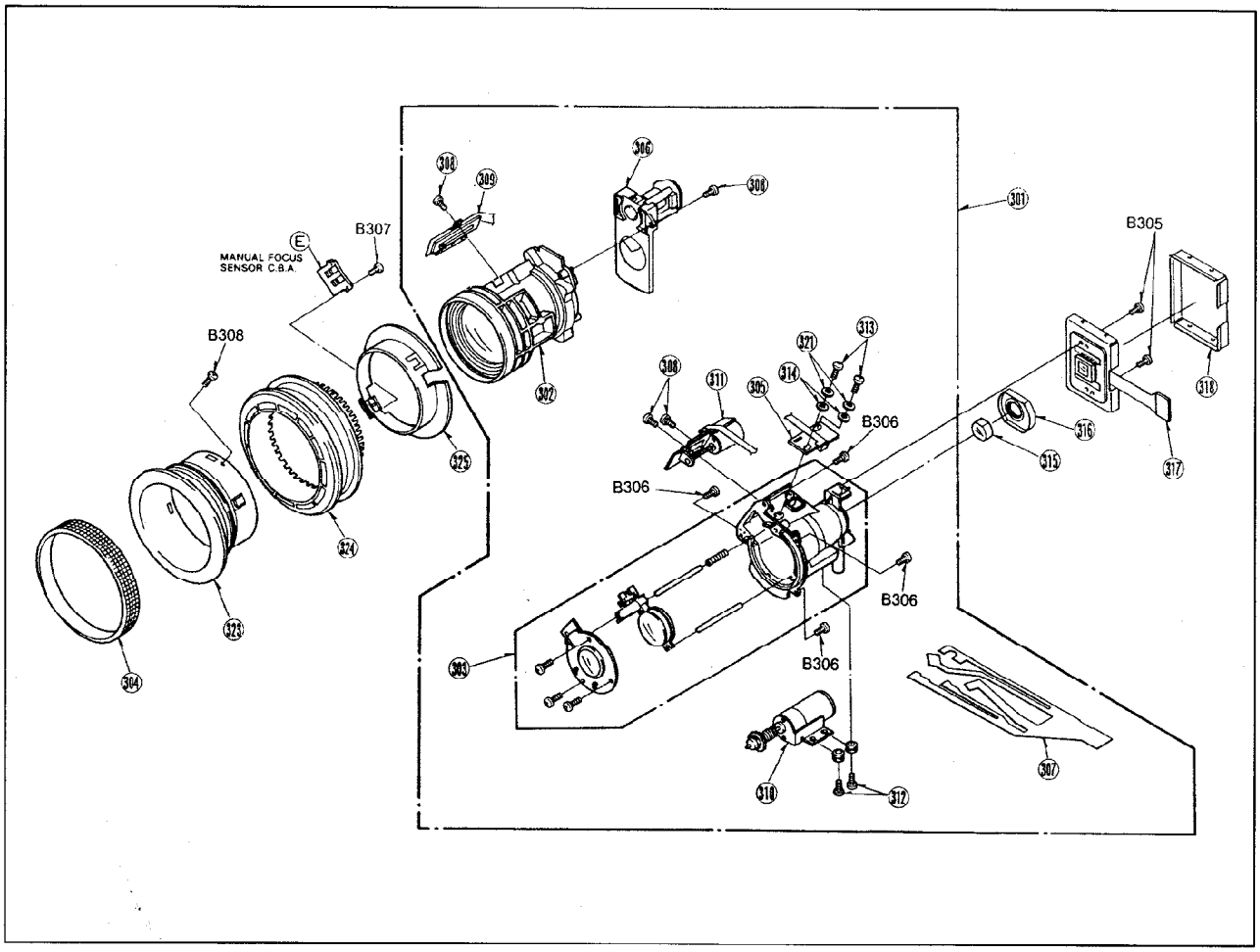


Fig. L2

2-4. REPLACEMENT PROCEDURES

2-4-1. PROCEDURE OF CLEANING OF CYLINDER UNIT

1. Position the video head to clean and hold the upper cylinder to keep it from turning while cleaning.
2. Gently rub the video head in direction of tape travel with the Head Cleaning Stick.
3. Repeat for the other three heads.

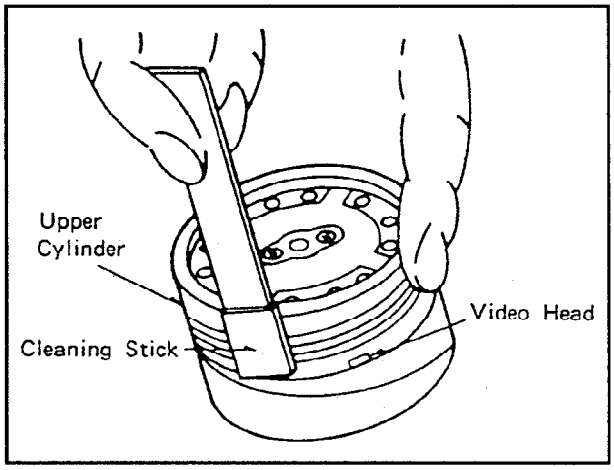


Figure R1

2-4-2. REPLACEMENT OF THE CYLINDER UNIT

Note: Dissaembly method is refer to Section 2-3

<Preparation>

1. Remove of Side Case(L) and cassette cover.
2. Remove of Side Case(R).
3. Open the Main C.B.A.

1. Remove screw (A) and remove the earth plate unit.

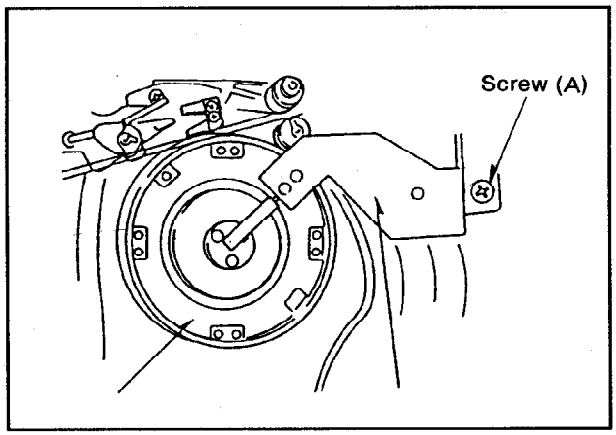


Figure R2

2. Disconnect connector FP2101 on the Main C.B.A.
3. Remove the 3 screws (B) and disconnect the connector.
4. Take out the Cylinder unit carefully.

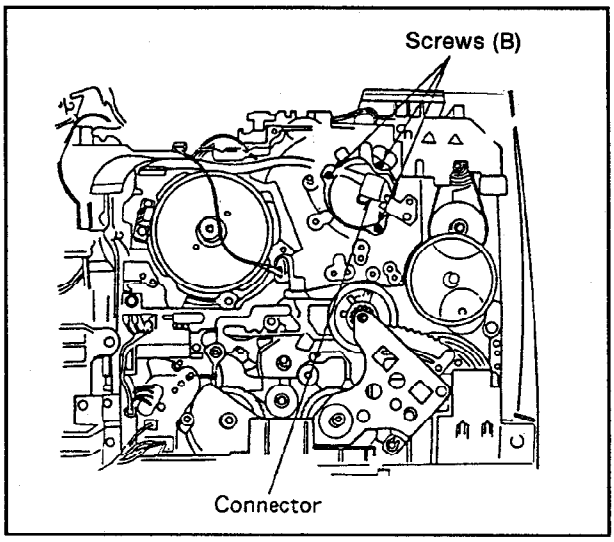


Figure R3

Note: Since there is very little clearance between the Cylinder Unit and the chassis, remove the Cylinder Unit carefully.

5. Reinstall the new Cylinder Unit, tighten the 3 screws and reconnect the connector.

Note:
1. Gently rub the video head in direction of tape travel with Head cleaning stick.
2. After replacement, confirm the performance.
   If any further maintenance is required, perform "TAPE INTER-CHANGE ABILITY ADJUSTMENT".

2-4-3. REPLACEMENT OF CAPSTAN MOTOR UNIT

* Equipment required:
  Reel Table Height Gauge (VFK0190)
* Specification ... 0.5 ± 0.05mm

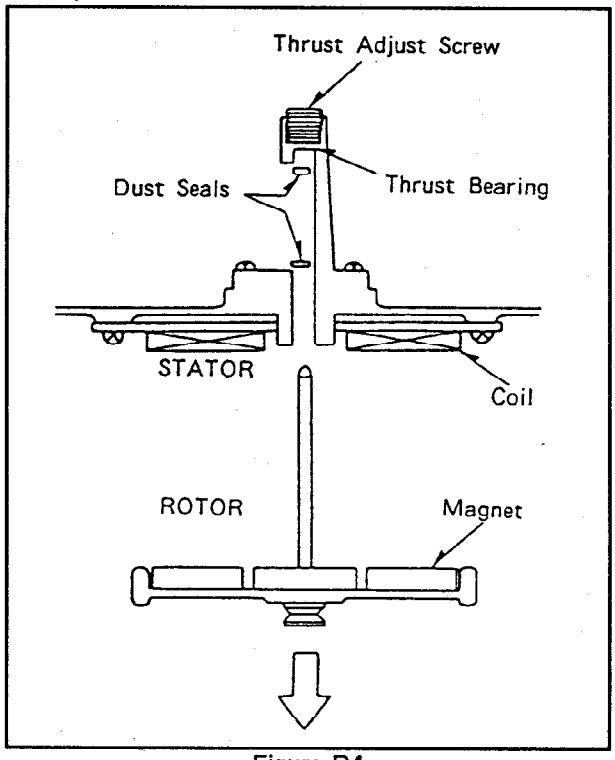


Figure R4

1. Remove 2 screws and take belt cover off. After that remove the capstan belt.
2. Tighten the Thrust Adjust Screw fully and pull the capstan rotor.

Note: In this time pay attention not to lose two pieces of Dust Seal.

3. Replace the new rotor with two pieces of Dust Seal.

Note:
1. Pay attention to the replaced new rotor not to shock because of magnet absorption.
   So hold the rotor firmly and replace it carefully.
2. In this replacement, do not touch the Capstan shaft with any hard material like drivers or tweezers. To prevent scratches and possible tape damage.

4. After replacement wipe off the Capstan shaft to remove oil, grease or dust.
5. Turn Thrust Adjust Screw clockwise till the rotor is just separating from the stator.
6. Turn Thrust Adjust Screw clockwise to another 180 degrees from above position

Note: If the Thrust Adjust Screw is fully opened, you have to pay attention not to lose Thrust Bearing.
When it is set, confirm that the direction of Thrust Bearing is correct as shown below.

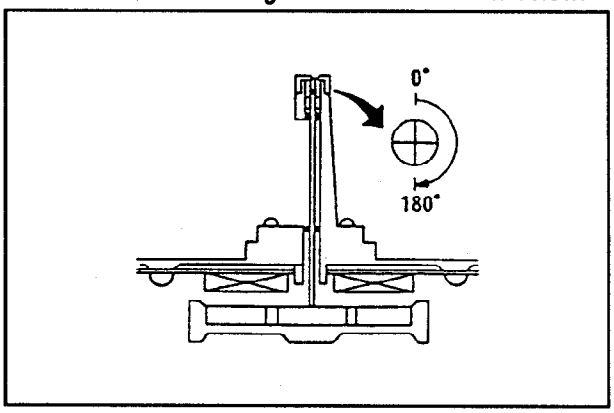


Figure R5

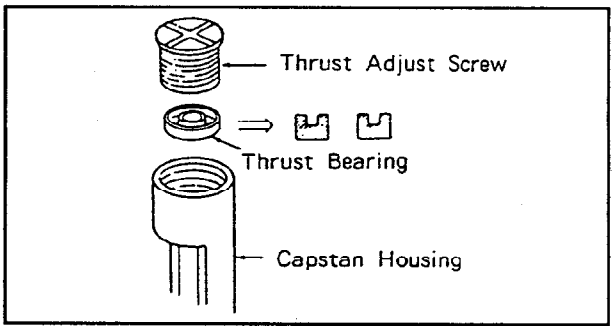


Figure R6

2-4-4. REPLACEMENT OF TENSION BAND

1. Remove the cassette compartment.
2. Remove retaining ring and take out the Rew Arm (A) Unit.
3. Remove retaining ring and washer on the soft breake lever S unit.
4. Remove retaining ring and a snap washer and take out the tension Band Unit.

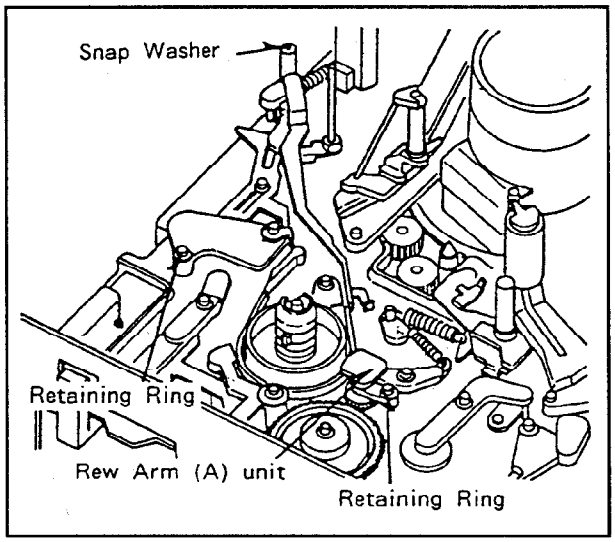


Figure R7

5. Remove screw and remove the tension band from the band release arm.
6. Remove retaining ring and remove tension band from tension arm unit.

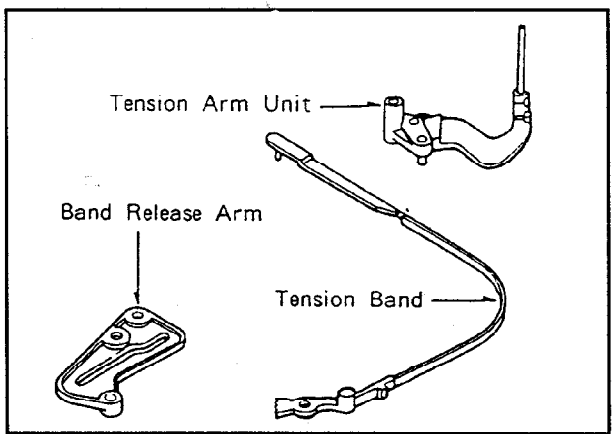
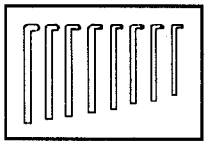
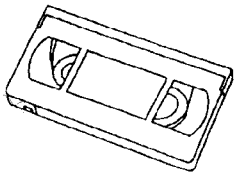
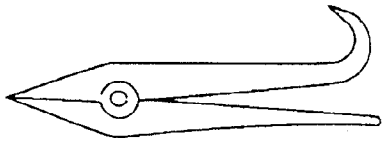


Figure R8

7. Replace the Tension Band by reversing the steps shown above.
8. After replacement, the Tension Post position and Back Tension Adjustment must be confirmed. (refer to step 6-3-13, 6-3-14)

2-5. MECHANICAL ADJUSTMENT PROCEDURES

2-5-1. SERVICING FIXTURES & TOOLS

<table>
<tr>
<td>VFK0326 ; Hex. Wrench Set
(0.7, 0.9, 1.2, 1.5, 1.6, 2, 2.4, 3 mm)
  </td>
<td>VFM8080HQFP : VHS Alignment Tape
  </td>
<td>VFK0335 ; Retaining Ring Remover
(3mm/4mm)
  </td>
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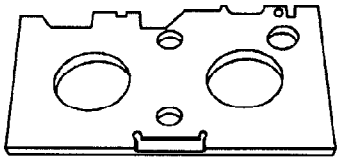
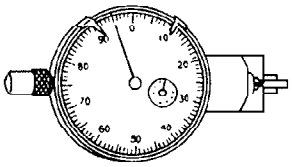
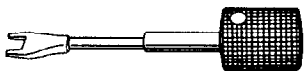
<td>VFK0191 ; Post Adjustment Plate
  </td>
<td>VFK0190 ; Reel Table Height Fixture
  </td>
<td>VFK0328 ; H-Position Adj. Screwdriver
  </td>
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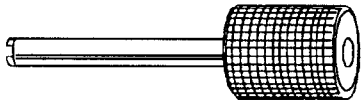
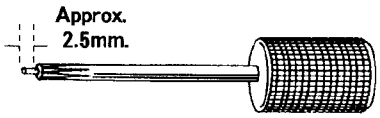
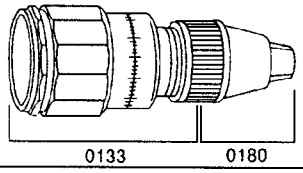
<td>VFK0329 ; Post Adj. Screwdriver
  </td>
<td>VFK0157 ; Fine Adj. Screwdriver
 
Grind the top portion approximately</td>
<td>VFK0133 ; Dial Torque Gauge
VFK0134 ; Adaptor for VFK0133
VFK0180 ; Plastic Clamper Only
  </td>
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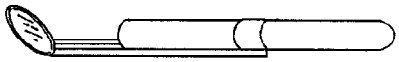
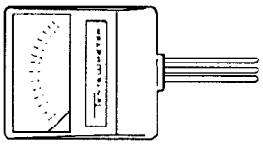
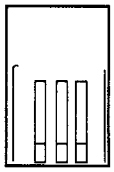
<td>VFK0948 ; Check Light
  </td>
<td>VFK0132 ; Back Tension Meter
(Tentelometer, Made in U.S.A)
  </td>
<td>VFK27 ; Head Cleaning Stick
  </td>
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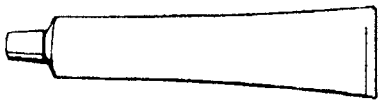
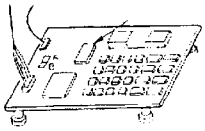
<td>MOR265 ; Morlytone Grease
  </td>
<td>High Quality Machine Oil
< Purchase Locally >
(Reel Shaft, Capstan Shaft etc.)

Cleaning Liquid
(Freon, TF, Alchol)
< Purchase Locally >
(Tape Tronsport Rubber Parts etc.)</td>
<td>VFK0644 ; EVR Fixture
*ROM IC VFK0701ROM11
  </td>
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</table>

2-5-2. ADJUSTMENT FLOW CHART

In order to gain access to the items needing service this flow chart describes the order of steps for adjusting the tape guide posts and A/C head.

AFTER REINSTALLING THE P1 POST, OR IF THE P1 POST HAS BEEN TURNED EXCESSIVELY.

↓

2-5-3. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS.

∗ **Note:**
Adjust the tape guide post P1 only.

↓

2-5-4. CONFIRMATION OF THE TAPE TRANSPORT.

↓

2-5-7. CONFIRMATION OF THE ENVELOPE OUTPUT (LINEARITY).

AFTER REINSTALLING THE CYLINDER UNIT

↓

2-5-7. CONFIRMATION OF THE ENVELOPE OUTPUT.

↓

2-5-11. ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE).

∗ **Note:**
Do not change the height of the P1 and P4 posts and position of the A/C head.

AFTER REINSTALLING ALL POSTS OR IF ALL POSTS HAVE BEEN TURNED EXTREMELY.

↓

2-5-3. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHT

↓

2-5-4. CONFIRMATION OF THE TAPE TRANSPORT.

↓

2-5-5. ADJUSTMENT OF THE PULL-OUT POST (P5 POST) HEIGHT.

↓

2-5-6. CONFIRMATION OF THE A/C HEAD TILT.

↓

2-5-7. CONFIRMATION OF THE ENVELOPE OUTPUT.

AFTER REINSTALLING THE A/C HEAD

↓

2-5-6. CONFIRMATION OF THE A/C HEAD TILT.

∗ **Note:**
Do not change the height of P4 post.

↓

2-5-8. COARSE ADJUSTMENT OF THE A/C HEAD HEIGHT.

↓

2-5-9. COARSE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION

↓

2-5-10. ADJUSTMENT OF THE A/C HEAD AZIMUTH.

↓

2-5-11. ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE).

AFTER REINSTALLING THE P4 POST, OR IF THE P4 POST HAS BEEN TURNED EXCESSIVELY.

↓

2-5-3. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS.

∗ **Note:**
Adjust the P4 post only.

↓

2-5-4. CONFIRMATION OF THE TAPE TRANSPORT.

∗ **Note:**
Adjust the P4 post only.

↓

2-5-6. CONFIRMATION OF THE A/C HEAD TILT.

↓

2-5-7. CONFIRMATION OF THE ENVELOPE OUTPUT (LINEARITY).

AFTER REINSTALLING THE PULL-OUT POST (P5 POST)

↓

2-5-5. ADJUSTMENT OF THE PULL-OUT POST (P5 POST).

∗ **Note:**
Do not readjust any other post.

2-5-3. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHT (P1,P2,P3 AND P4)

* Equipment Required:
Post Adjustment Plate ..... VFK0191 or VFK1012
Reel Table Height Gauge VFK0190
Nut Driver (Purchase locally)
Post Adjustment Screwdriver VFK0329

1. Remove the cassette compartment from the mechanical chassis.
2. Place the Post Adjustment Plate over the reel tables. (Figure M1) Confirm that the Post Adjustment Plate is firmly seated.

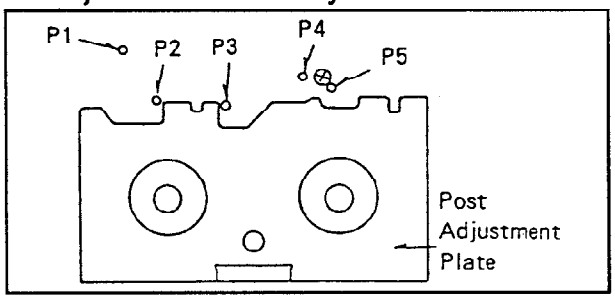


Figure M1

3. Lower all 4 tape guide posts so that the lower tape guide on each post is below the top surface of the adjustment plate.
Use the post Adjustment screwdriver to lower posts P2 and P3, and the Nut Driver to lower Posts P1, P4 and P5.
4. Place the Reel Table Height Gauge on the Post Adjustment Plate and lower the scraper so that it touches the plate (Figure M2).

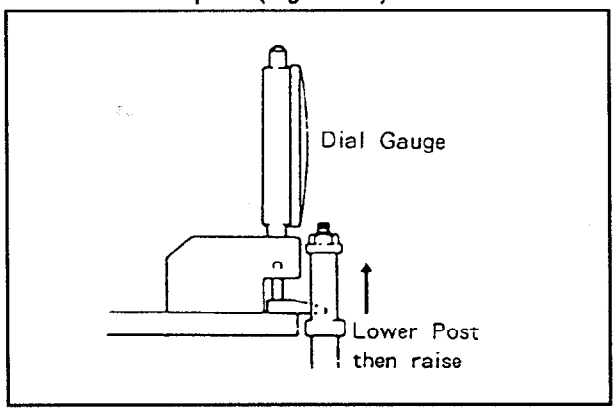


Figure M2

5. Place the side of the scraper against the each post as shown in Figure M3, set the gauge to zero, then slowly raise the post until the lower tape guide just touches the bottom of the scraper. Use the gauge to determine the exact point at which the lower tape guide touches the scraper. (Figure M3).

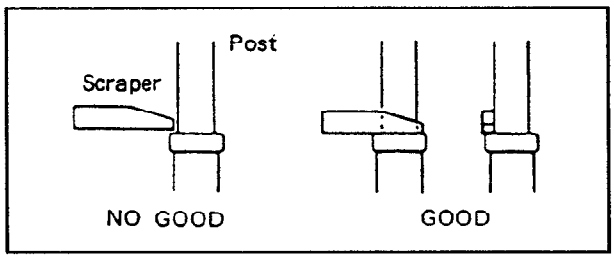


Figure M3

2-5-4. CONFIRMATION OF THE TAPE TRANSPORT (TAPE GUIDE POSTS)

Note:
1. The tape guide posts have been precisely adjusted at the factory. Therefore, normally do not change the height of P1, P4 and P5 posts. The following adjustment is required only when replacing the posts.
2. If curling is apparent proceed to the P4 post, wipe dirt from the pressure roller and capstan shaft using a soft cloth impregnated with Freon TF or cleaning liquid.
3. The adjustment of the post height is required only it one has been replaced.

* Equipment Required
Post Adjustment Screwdriver VFK0329
Check Light VFK0948
Nut Driver (Purchase locally)

1. To prevent the alignment tape from being damaged, use a normal cassette tape for this procedure.
Play back the normal cassette tape and confirm that the tape travels without any curling at the edges of all the posts by using the check light. (Figure M4 and Figure M5).

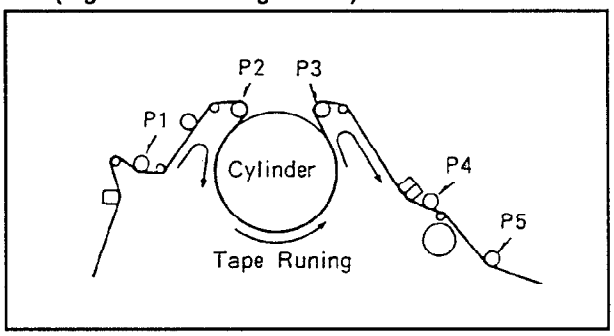


Figure M4

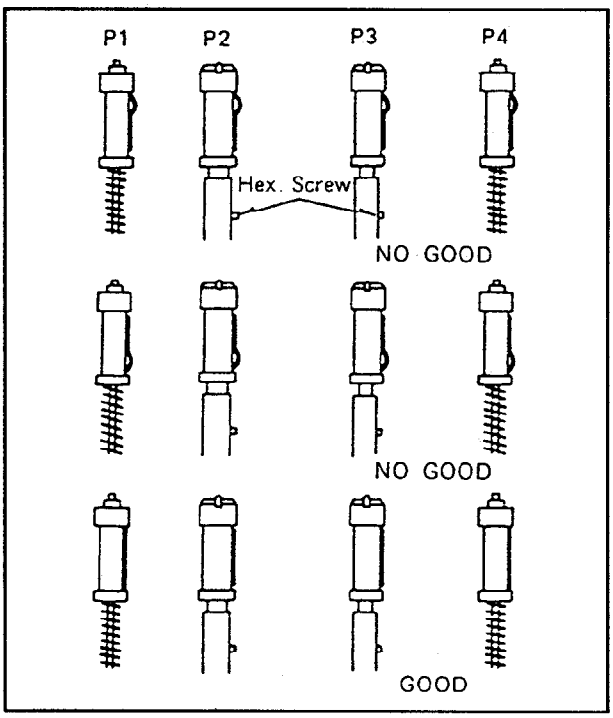


Figure M5

2. If curling is apparent, adjust the height of posts by turning the top of post with the post adjustment screwdriver (posts P2 and P3) or the nut-driver (Posts P1 and P4)(Figure M4 and M5).
3. After adjusting the P4 post, adjustment of the pull-out post (P5) is required. (Refer to "ADJUSTMENT OF THE PULL-OUT POST HEIGHT".)
4. If the tape curling cannot be corrected by adjusting the tape guide posts, then adjustment of the A/C head tilt may be needed.

2-5-5. ADJUSTMENT OF THE PULL OUT POST (P5 POST) HEIGHT

Note: 1. This adjustment should be performed only after adjusting tape guide post P4 as the height of the pull-out post is based on the height of post P4.

* Tools and Equipment Required:
Post Adjustment Plate ..... VFK0191 or VFK1012
Reel Table Height Gauge VFK0190
Check Light VFK0948
Nut Driver (Purchase locally)

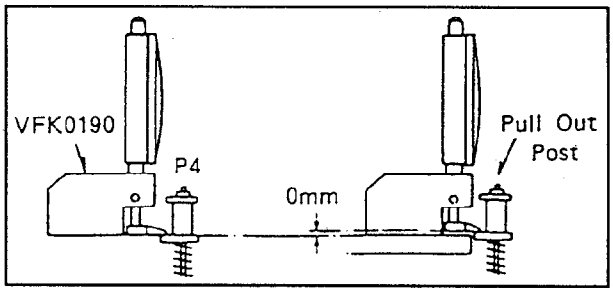


Figure M6

1. Remove the cassette compartment by removing 4 screws.
2. Place the Post Adjustment plate over the reel tables.
3. Place the Reel Table Height Gauge on the tape guide post P4, lower the scraper so that it touches the lower edges of P4, then set the gauge to zero ("0")(Figure M6).
4. Slightly lower the pull-out post by turning the nut on the post clockwise with the nut driver, and set the side of the scraper against the post as shown in Figure M7.
5. Slowly turn the nut on the post counterclockwise until the gauge reads 0mm (Figure M6).
6. Confirm there is no tape curling at P4 post during reverse mode by using the check light. If tape curling occurs, Go back to step 3.

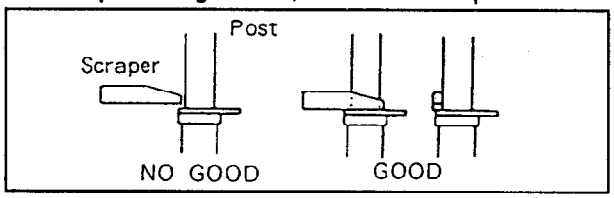


Figure M7

2-5-6. CONFIRMATION OF THE A/C HEAD TILT

Note: This procedure should be performed after replacing the A/C head and pressure roller, and adjusting the height of the tape guide post (P4). (Refer to "COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHT").

* Tools and equipment Required:
Hex. Wrench Set VFK0326
Nut Driver (purchase locally)

1. Play back the beginning portion of T180 (NTSC) / E240 (PAL) blank cassette tape and confirm that the tape runs between lower and upper limiters of the P4 post. If there is waving or filling in the lower edge or top edge of the tape, correct the tilt of the A/C head by turning the screw located behind the A/C head (Figure M8).

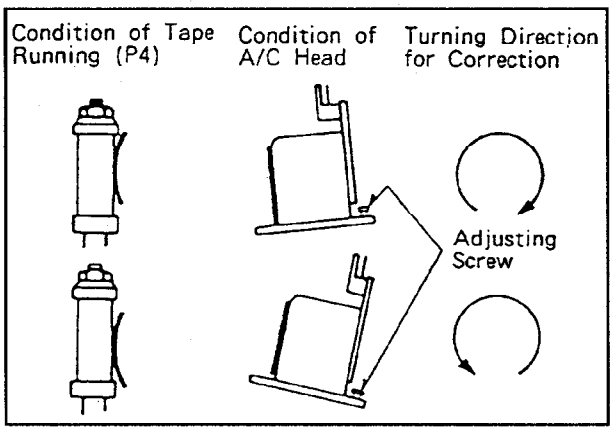


Figure M8

2. If the tape curling cannot be removed by adjusting the A/C head tilt, then readjustment of the height of the tape guide post (P4) may be needed.

Note:
1. The tape guide post (P4) has been precisely adjusted at the factory. Therefore, normally the tape guide post (P4) readjustment is not required to eliminate the tape curling.
2. After adjusting the A/C head tilt, the A/C head height adjustment is required.

2-5-7. CONFIRMATION OF THE ENVELOPE OUTPUT (LINEARITY)

Note: Before playing back the alignment tape, play back a normal cassette tape and confirm correct transport. (Refer to "CONFIRMATION OF THE TAPE TRANSPORT".)

* Tools and Equipment Required:
Post Adjustment Screwdriver VFK0329
Alignment Tape VFM8080HQFP

1. Connect the scope to the output of the Head Amp (CL3003) on the MAIN C.B.A. and TP6201 on the same C.B.A. to External trigger of the scope.
2. Play back the monoscope portion of the alignment tape.
3. Press the Tracking Control buttons and adjust for maximum RF envelope.
4. If the RF envelope appears like example "A" or "B" in Figure M9, then adjustment of tape guide post (P2: Entrance) is necessary.
5. Adjust the tape guide post (P2) with the post adjustment screwdriver so that the RF envelope waveform at the entrance portion becomes flat as shown "C" in Figure M9. (See Figure M12 also).

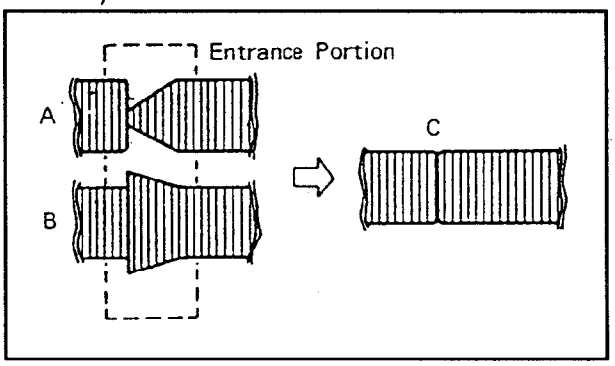


Figure M9

6. If the RF envelope appears like example "D" or "E" in Figure M10, then adjustment of the tape guide post (P3: Exit) is necessary.
7. Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in "F" in Figure M10.

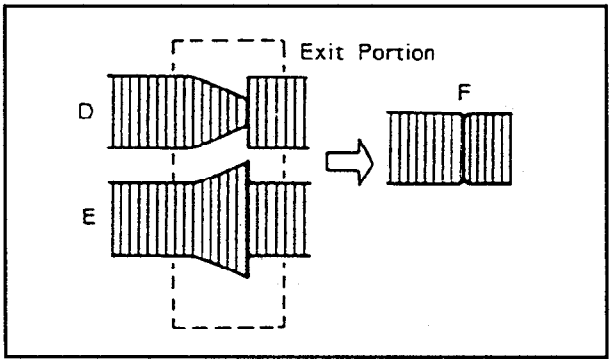


Figure M10

8. Set the Tracking Control buttons from one end postion to another end.
The variation of RF envelope should be nearly parallel as shown in Figure M11.
9. Press the Tracking buttons and adjust for maximum RF envelope.
If the RF envelope does not meet these specs, V1/V 0.7, V2/V 0.8, then repeat steps 1-9 of item 3-2-5. again (Figure M13).

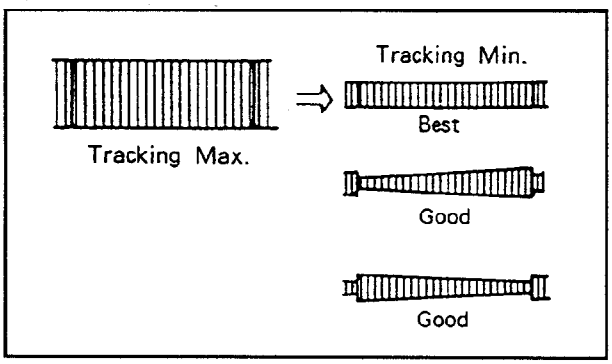


Fig M11

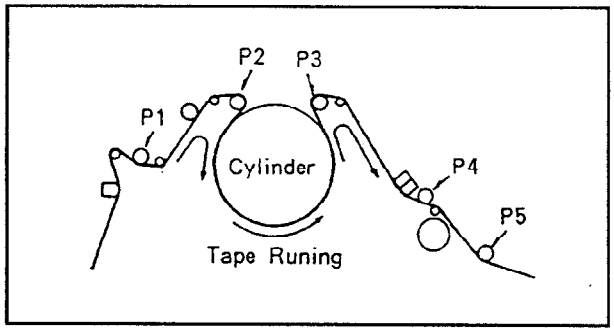


Figure M12

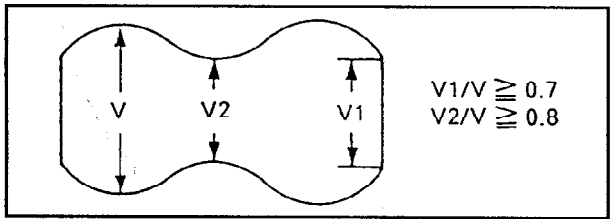


Figure M13

10. Set the Tracking buttons form one end to another end again, then set back to the Fix position by pressing both tracking buttons simultaneously or switching the power off and on again.
    At the Fix position, the RF envelope waveform should be at maximum. If it is not at maximum then "ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION" is necessary. (Refer to "FINE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION".)

2-5-8. COARSE ADJUSTMENT OF THE A/C HEAD HEIGHT

Note: This procedure should be performed only when the A/C Head is replaced.

* Tools and Equipment Required:
Check Light VFK0948
Nut Driver (Purchase locally)

1. Looking at the lower edge of the control head within the tape running, ensure that lower edge of the tape runs along 0.25mm in from the lower edge of the control head. If it doesn't slightly turn the nut (A) in either direction to correct clockwise to lower the head and counterclockwise to raise it.

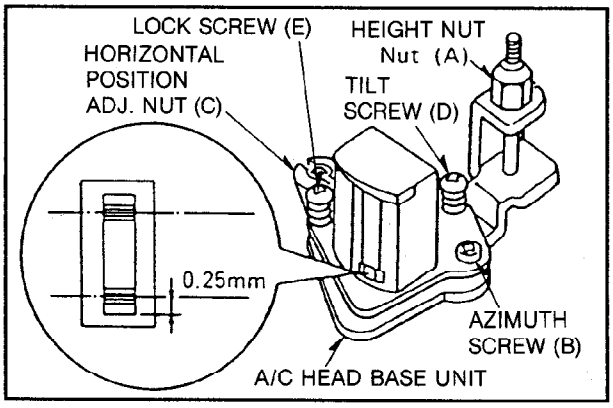


Figure M14

2-5-9. COARSE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION

Note: This procedure should be performed only when the A/C head is replaced.

1. Connect the scope CH1 to output of the Head Amp (CL3003) on the Main C.B.A. and CH2 to audio output.
2. Play back the alignment tape [the portion for the A/C head horizontal adjustment (coarse)].
3. Set the tracking control buttons to Fix position by pressing both tracking buttons simultaneously.
4. Adjust the adjustment nut (C) so that the phase of audio drop-out and RF video drop-out becomes as close as possible.
5. Adjust the adjustment nut (C) so that the center of RF envelope level becomes maximum.
6. Confirm the phase of RF video drop-out and audio drop-out should be less than 15 msec.

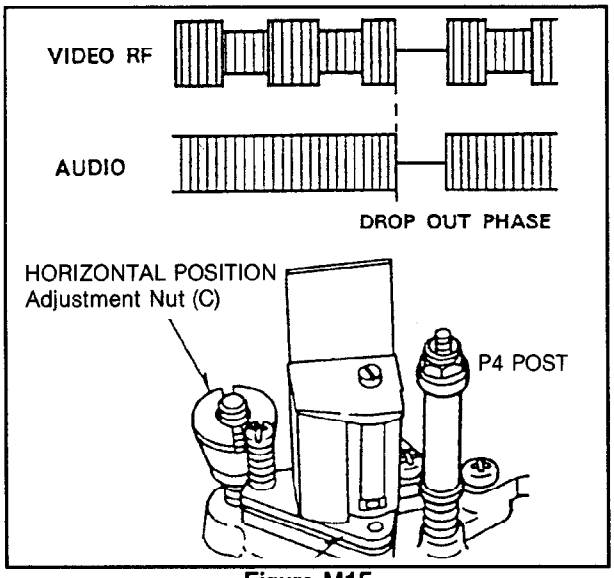


Figure M15

2-5-10. ADJUSTMENT OF THE A/C HEAD TILT AND AZIMUTH

Note: This procedure should be performed only when the A/C Head is replaced and posts height are readjusted.

* Tools and Equipment Required:
Nut Driver (Purchase locally)
Alignment Tape VFM8080HQFP

1. Connect the scope to the audio output.
2. Play back the alignment tape (2nd portion (Normal Audio 6KHz)).
3. Adjust the screw (B) so that the audio output level becoms maximum. (FIgureM16)
4. Then adjust the net (A) so that the audio output level maximum.

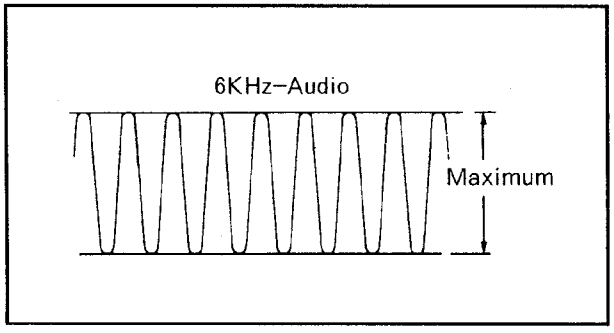


Figure M16

2-5-11. ADJUSTMENT OF A/C HEAD HORIZONTAL POSITION

Note: This procedure should be performed only when the A/C head is replaced and after performing the tape interchangeability adjustment.

* Tools and Equipment Required:
H. Position Adj. Fixture VFK0328
Alignment Tape VMF8080HQFP

1. Set the Tracking Control buttons to Fix position.
2. Connect the scope CH1 to TP3001 on the Main C.B.A., and TP4001 on the Audio C.B.A. to Ext trigger the scope.
3. Play back the Monoscope pattern of the alignment tape.
4. Adjust the adjustment nut so that the RF envelope output level becomes is maximized at the Fix position (Figure M17).
5. Set the Tracking buttons from one end position to another end then back to Fix position by pressing both tracking buttons simultaneously. Confirm that the RF envelope output level is maximized at the Fixed position (Figure M18).

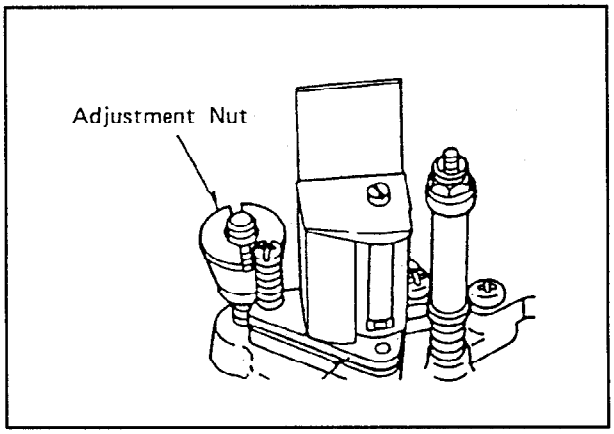


Figure M17

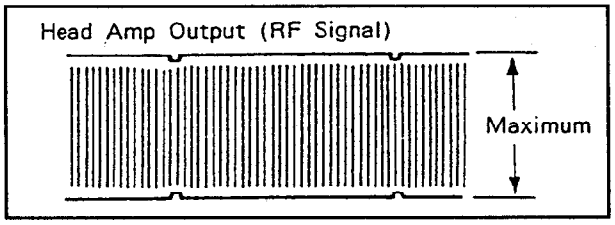


Figure M18

2-5-12. CONFIRMATION OF BRAKE TORQUE

* Equipment Required:
  Dial Torque Gauge VFK0133
  Adaptor for Gauge VFK0134
* Specification: ----- See spec table (Figure M19)

1. Remove the cassette compartment by unscrewing 4 screws.
2. Attach the adaptor to the torque gauge and place the unit in STOP mode.
3. Place the torque gause on the reel table. The weight of gauge should not rest on the reel table.

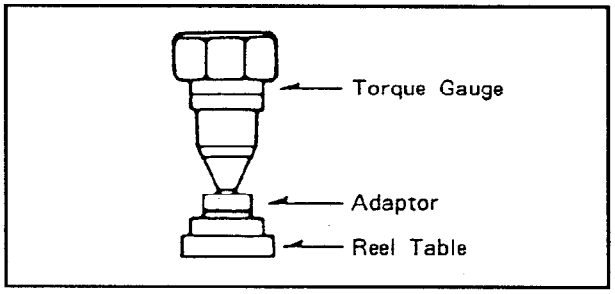
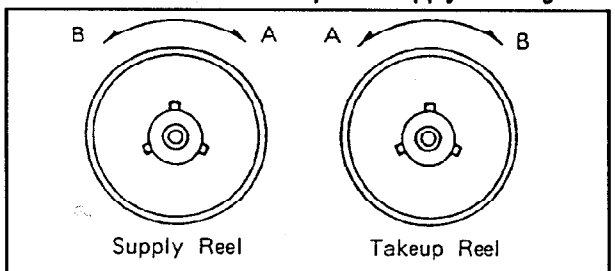


Figure M19

4. Turn torque gauge in either direction indicated in the Figure M19, and read the gauge when the brake begins slipping.

Note: If proper brake torque can not be obtained, check both take-up and supply clutch gear.



	A	B
Takeup	28+-8g-cm	28+-8g-cm
Supply	28+-8g-cm	28+-8g-cm.

Figure M20

2-5-13. TENSION POST POSITION ADJUSTMENT

* Specification: ----- 2.4mm ~ 2.9mm

1. Remove the Cassette Up unit by removing 4 screws. (Refer to the disassembly procedures titled in Removal of the Cassette Up Unit). Place the unit in Play mode by rotating Drive Gear (A) clockwise as shown below.

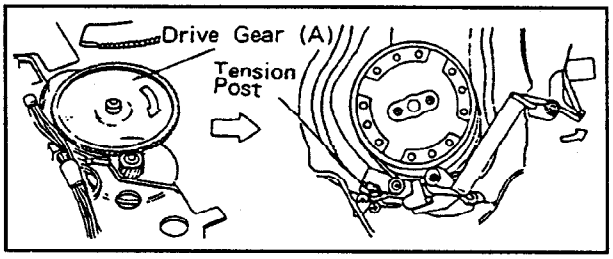


Figure M21

Note: In this case, make sure that the power is not applied.

2. Loosen the screw (A) a little bit and adjust the Tension Post adjustment plate so that the "Distance (A)" shown below becomes just meets the specification (2.4mm ~ 2.9mm).
3. Tighten the screw (A) to set it.

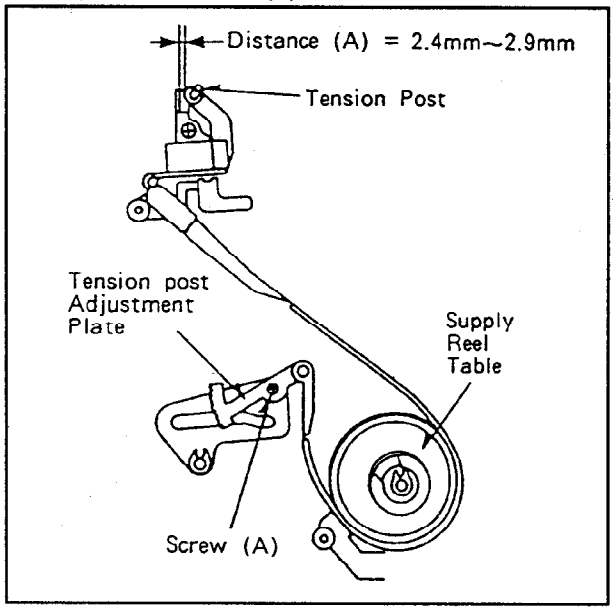


Figure M22

2-5-14. BACK TENSION ADJUSTMENT

* Equipment Required:
  Back Tension Meter VFK0132
  VHS Cassette Tape (120min)
* Specification: ----- 19~23g

1. Play back the cassette tape from the beginning and wait until the tape movement becomes stable. (for approx. 1-~20 seconds) is stabilized.
2. Insert the Back Tension Meter into the path of a tape, and measure if the back tension is within specification as shown in Figure M23.

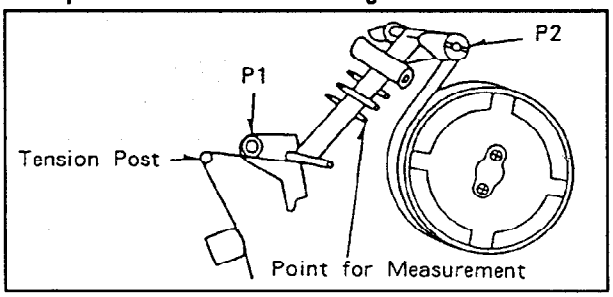


Figure M23

Note:
1. While measuring, make sure that the three probes of the meter are all in good contact with the tape.
2. As the tension meter is very sensitive, we recommend taking 3 separate readings.
3. If it is out of specification, change the spring notch as shown in Figure M24.

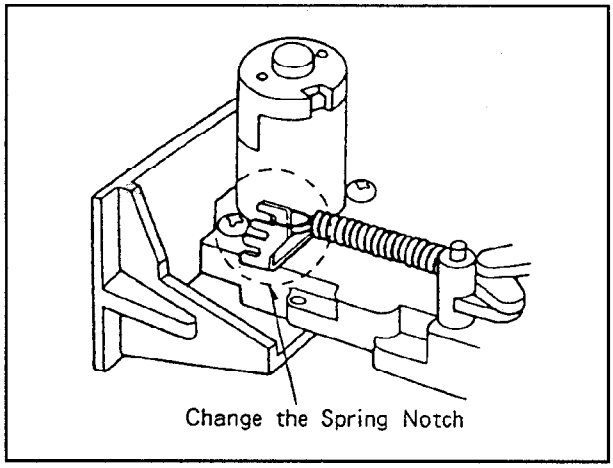


Figure M24

2-5-15. REEL TABLES HEIGHT ADJUSTMENT

* Equipment Required:
  Post Adjustment Plate ..... VFK0191 or VFK1012
  Reel Table Height Gauge VFK0190
* Specification ----- 0~0.15mm

Note: Cut-out on Post Adjustment Plate is reference of reel table height and their height is measured based on this reference.

1. Place the post adjustment plate on the reels, and put the Gauge on the plate. Set the gauge to zero "0" with the foot scraper of the gauge touching the cut-out portion of the plate.

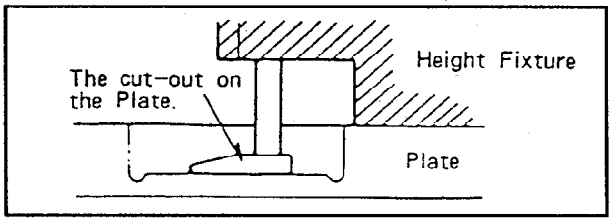


Figure M25

2. Then measure the height of reel table and confirm the difference performed in step 1 as shown below. Do the same for the other reel table.

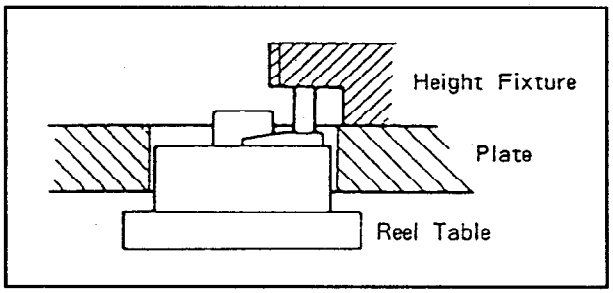


Figure M26

3. If a height difference in readings between the cut-out portion of plate and reel tables is not 0~-0.15mm (height or lower), adjust the height of the reel to obtain specified height.
4. For adjustment add or take out a washer.

2-5-16. ADJUSTMENT OF CAPSTAN FG HEAD GAP

* Specification ----- 0.17~0.18mm

1. Slightly loosen the 2 screws.
2. Put the paper which is used for cover page of this volume into the gap between F.G.Head and Capstan rotor.(The thickness of the cover page is approx 0.17mm).
3. After adjustment, tighten 2 screws.

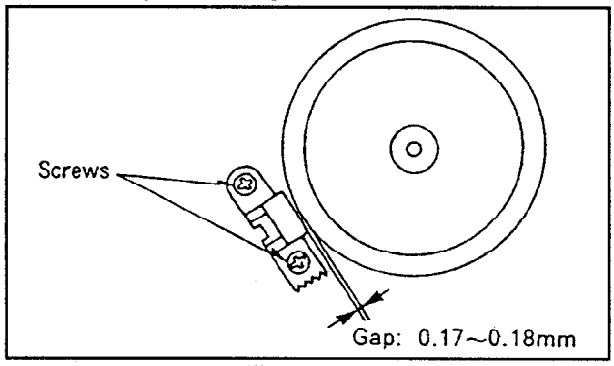


Figure M27

Note: Do not touch the surface of rotor and keep any magnetic material away.

2-5-17. TAKE UP IMPEDANCE ROLLER POSTION ADJUSTMENT

1. Loose screw (A) a little bit.
2. Push the Impedance roller to arrow direction and conform the project(A) touched to the V stopper base(B) then tighten the screw(A).

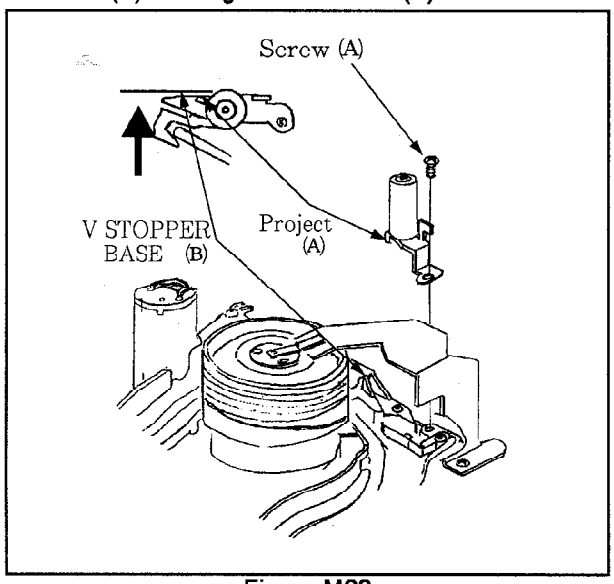


Figure M28

2-6. ASSEMBLY ADJUSTMENT PROCEDURES OF MECHANISM

The mechanism of this model is mostly engaged to the System Control Circuit, through the mode select switch.
Therefore the relationship between the mode select switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If these parts are fixed in properly, the unit will be unloaded or compulsorily stopped.
And it will result being damage to any mechanical or electrical parts.

2-6-1. PROCEDURES FOR ASSEMBLING LOADING RING AND LOADING GEARS

1. Insert a ring guide sleeve onto the 3 shaft on the chassis.
2. Insert Loading Ring T (1) unit and a Loading Gear (B) with cut washer so that both triangle marks line up as shown below.

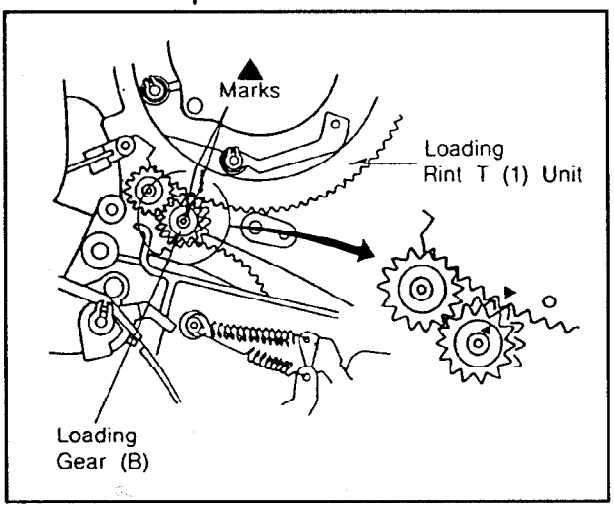


Figure M29

3. Insert loading guide roller onto 3 shaft.
4. Install a Loading Gear (A) with cut washer and next set a Loading Ring S (1) Unit so that the holes of Loading Ring S (1) Unit and T (1) Unit line on as shown below.
5. Install pressure spring inserted between loading ring S (1) unit and T (1) unit then set both loading ring units with washers and retaining rings.

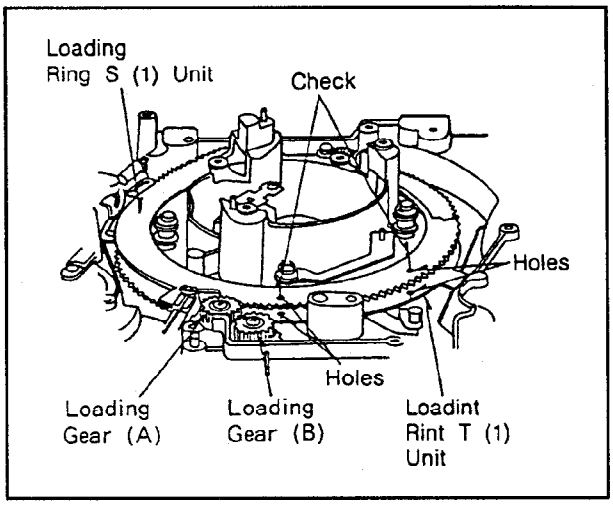


Figure M30

Note: Pay attention that the washers are remaining under the loading gears or any other parts.

2-6-2. PROCEDURES FOR ASSEMBLING TAKE-UP LOADING GUIDE AND TAKE-UP LOADING POST UNIT

1. Install Loading Guide T unit then tighten 3 screws.
   The small projection of a Loading Ling T unit must be inserted into gap of Loading Guide T unit.

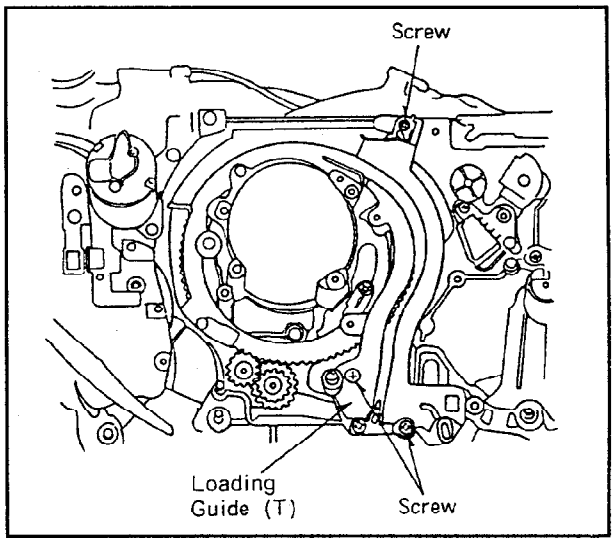


Figure M31

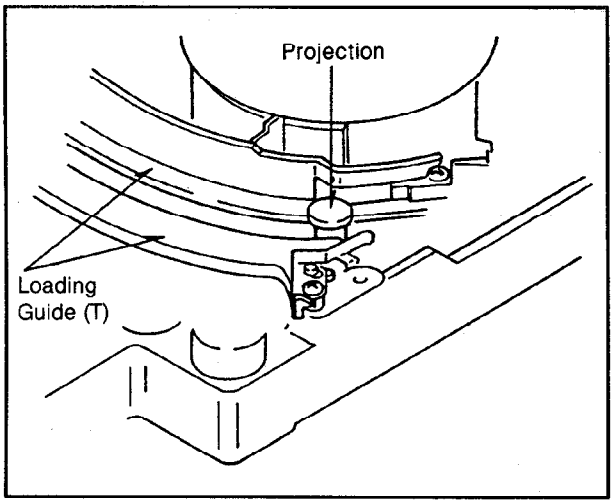


Figure M32

2. Fix a Take-up Side Loading Post unit holding the Small projection of the Loading Ling T unit and install at shaft Holder Unit.
3. Install the take up shaft holder angle and tighten a screw.

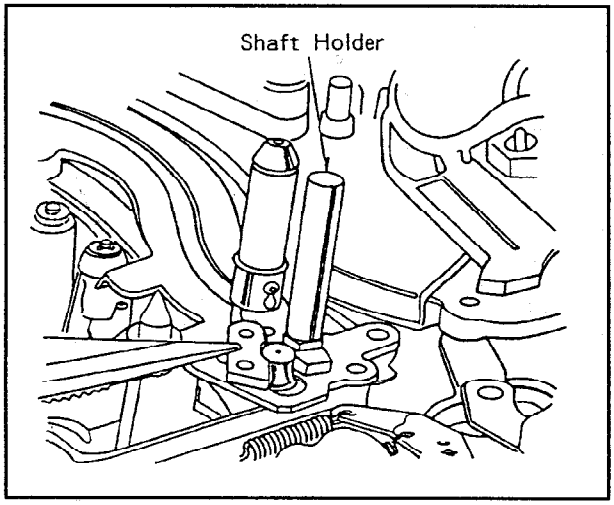


Figure M33

2-6-3. PROCEDURES FOR ASSEMBLING SUPPLY LOADING GUIDES AND SUPPLY LOADING POST UNIT

1. Install the Loading Guide S-1 and S-2. Then tighten 4 screws.

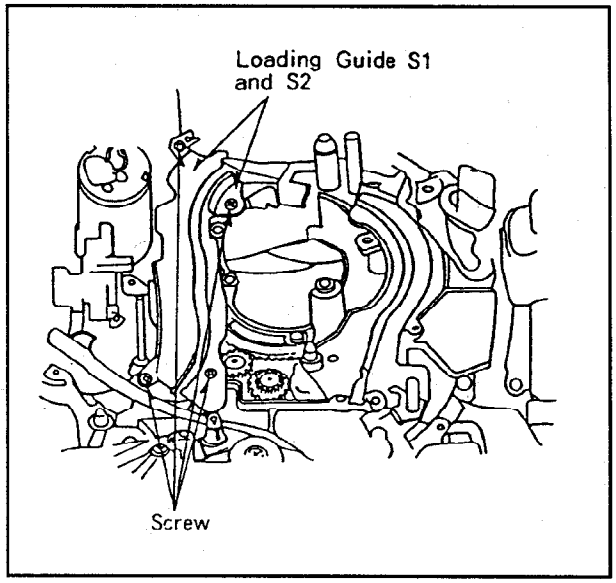


Figure M34

2. Slide a Supply Loading Post Unit into the gap between the Loading Guide S1 and S2 hooking the connection Rod to the connection Tie Unit as shown below.

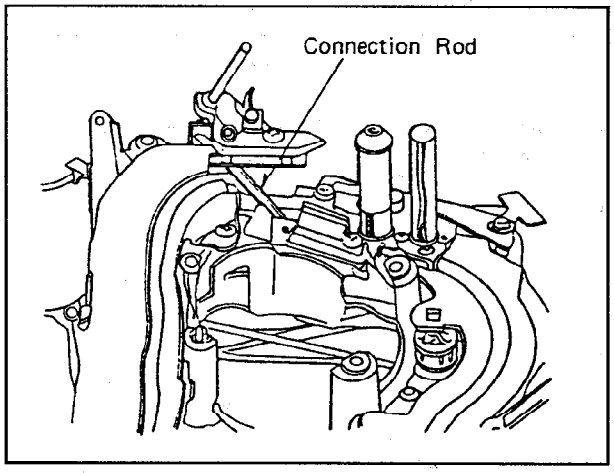


Figure M35

3. Install a V stopper Base and Supply Post Stopper.

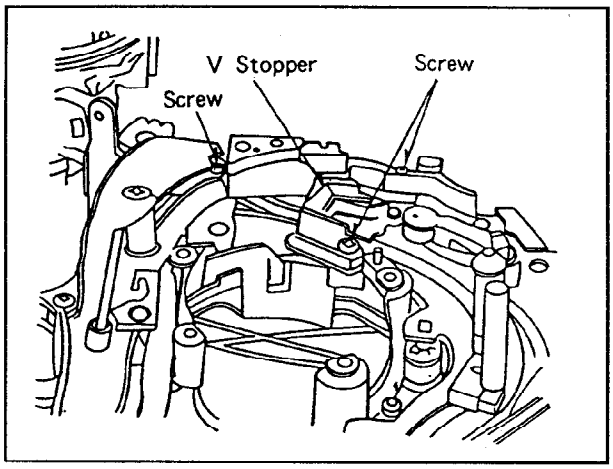


Figure M36

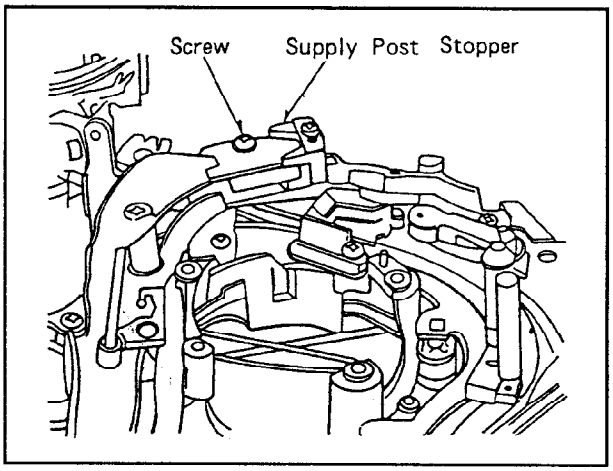


Figure M37

4. Set the Loading Post unit into Stop position as shown below.

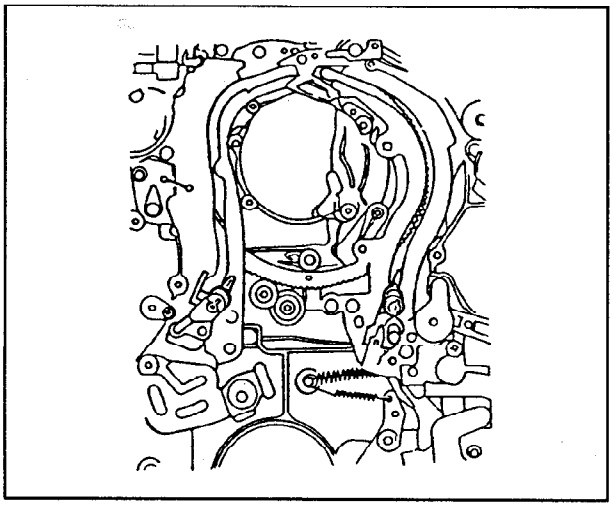


Figure M38

2-6-4. PROCEDURES FOR ASSEMBLING MAIN ROD

1. Place the Main Rod inserting 3 Thrust Washers and then insert 3 washers.
After that, set them using 2 retaining rings as shown below.

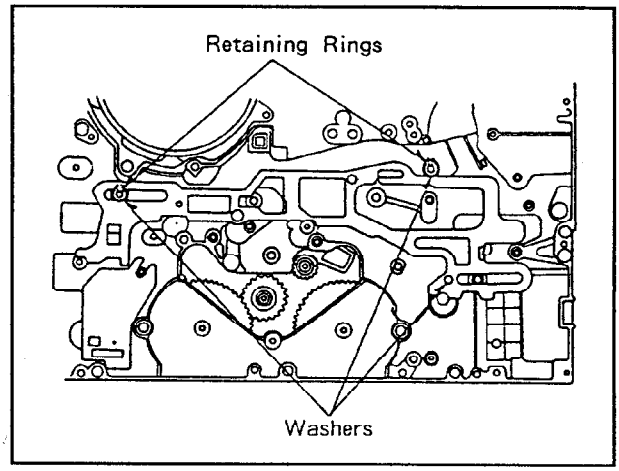


Figure M39

2. Install the Drive Arm kick Lever hooking the Drive Arm Kick Lever Spring and set it using a retainings.

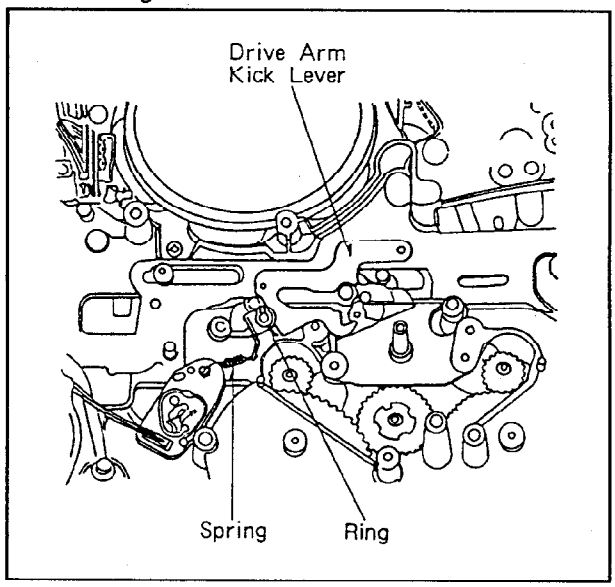


Figure M40

2-6-5. PROCEDURES FOR ASSEMBLING CAM GEAR AND LOADING GEAR (C)

1. Make sure that the hole on the Main Rod Lines up exactly with hole on chassis as shown below. Also, make sure the hole on the Cam Gear Lines up with the holes on the chassis.

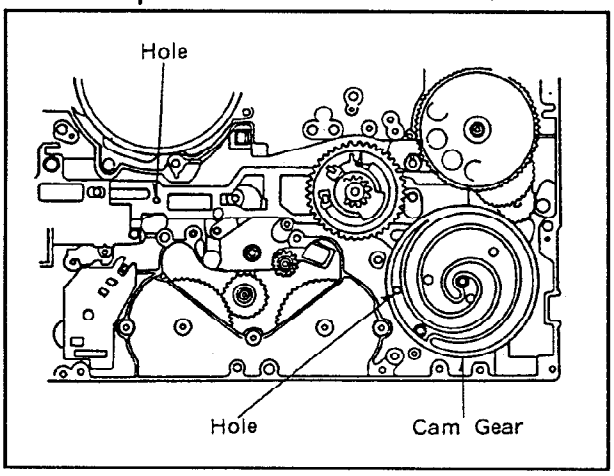


Figure M41

2. Install the Loading Gear (C) keeping the relationship as shown below.

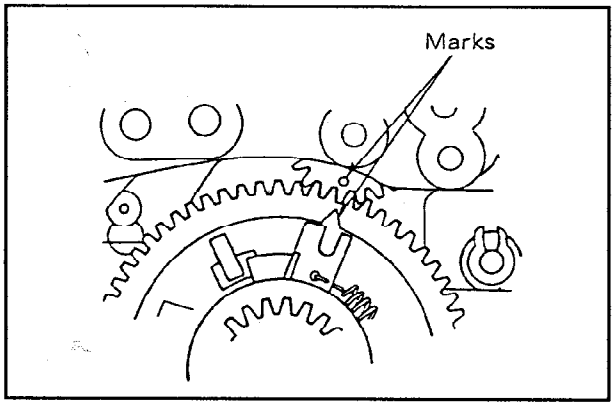


Figure M42

3. Install a Sector Gear as shown below.

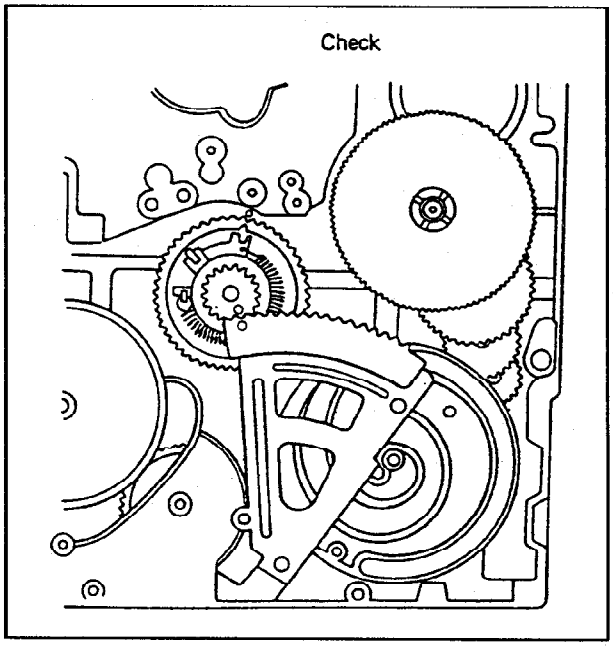


Figure M43

4. Set the SG Limiter.

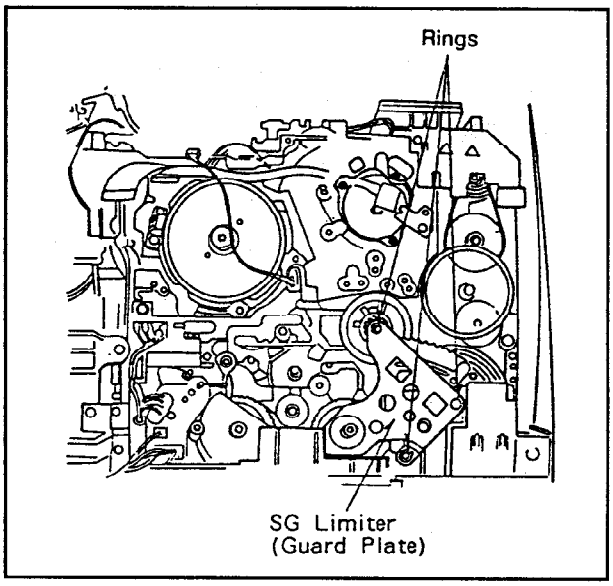


Figure M44

5. Install the belt and the belt cover.

2-6-6. ASSEMBLY PROCEDURES OF MODE SELECT SWITCH

1. Perform this procedure after confirming the complete setting of mechanical parts. First of all, confirm that the hole on a Main Rod is meeting with the hole on the chassis.
2. Position the moving contact of the mode select switch to the position as shown below.

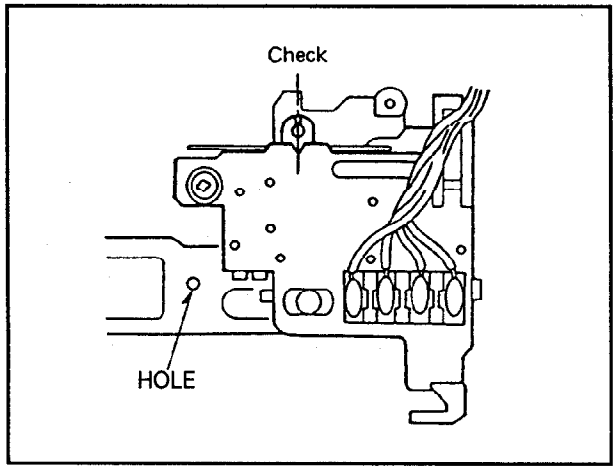


Figure M45

3. Install the Mode Select Switch Keeping these relationship written in item (1) and (2) by adjusting 2 screw.

2-7. ELECTRICAL ADJUSTMENT PROCEDURES

2-7-1. ELECTRICAL ADJUSTMENT FOR VTR SECTION

TEST EQUIPMENT AND TOOLS

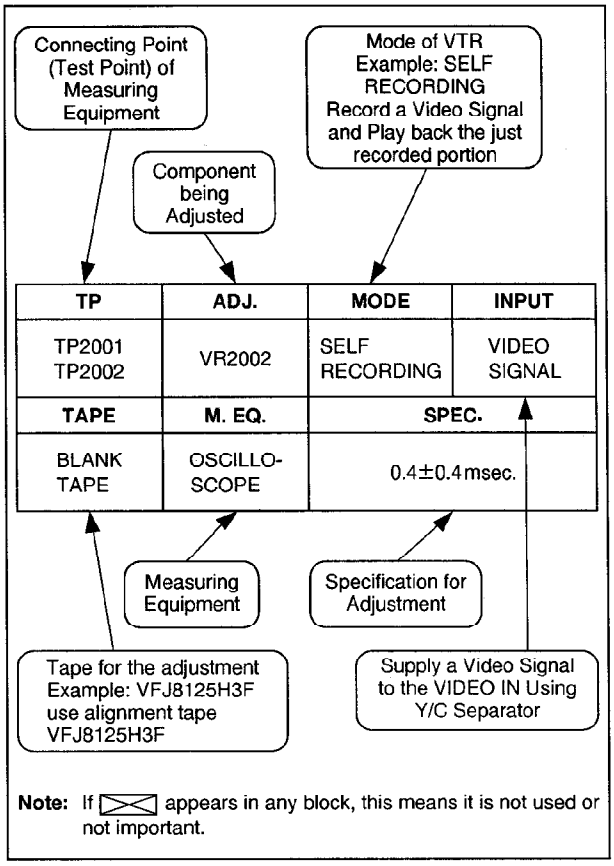
The following equipment is required for adjustment of the VTR section of VHS-Movie.

1. VTVM (Vacuum Tube Volt Meter)
   DVM (Digital Volt Meter)
   Voltage Range: 0.01—50V)
2. Dual Trace Oscilloscope
   Voltage Range: 0.06—50V/div
   Frequency Range: 0—50MHz
   Probe: 10 : 1 or 1 : 1
3. Frequency counter
   Frequency Range: 0—10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0—10MHz
5. Video Sweep Generator
   Frequency Range: 0—10MHz
6. Colour Monitor TV
7. Plastic Tip Driver
8. VHS-Movie. Alignment Tape (VFM8080HQFP)
9. S-VHS-Movie. Blank Tape
10. Pattern Generator
11. Vectorscope
12. DC Power Supply

PREPARATION

1. Remove the casing panels.
   (Refer to the disassembly method)
2. Connect the extension cable if necessary.
   VFK0823

HOW TO READ THE ADJUSTMENT PROCEDURES



Note: If ⊠ appears in any block, this means it is not used or not important.

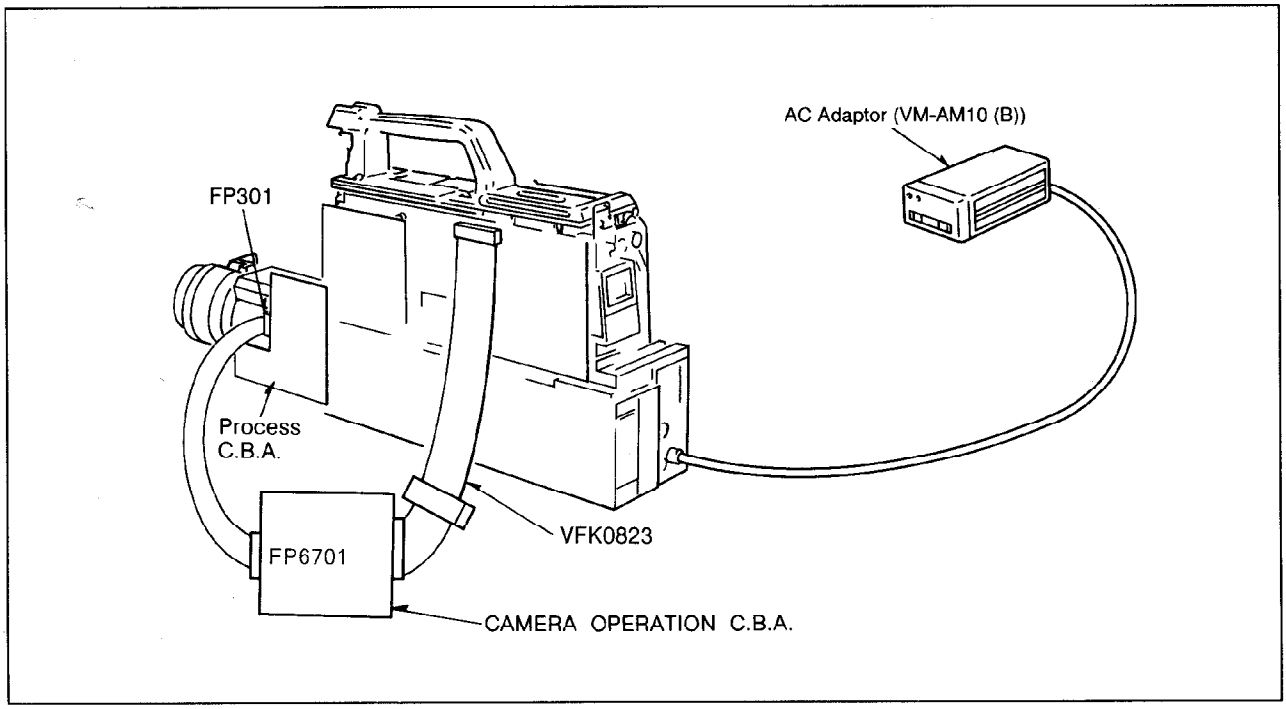


Fig. V1

TRIGGERING THE OSCILLOSCOPE

To trigger the Oscilloscope, the following test point is used.

H. rate: TP (video output)
V. rate: CKJ6 (Head Switch signal)
(B6001(6))

POWER SECTION

1. REG. 5V ADJUSTMENT

Purpose:
To properly calibrate the 5V voltage to 4.85 DC+−0.025V.

Symptom of Misadjustment:
All circuits in the unit will not operate properly.

TP	ADJ.	MODE	INPUT
TL1001 (HOT) TL1006 (GND)	VR1001	S-VHS CAMERA RECORDING (EIS ON)	
TAPE	**M. EQ.**	**SPEC.**	
S-VHS BLANK TAPE	D.V.M.	4.85+−0.025V	

Note:
Sensor, process, and camera operation C.B.A. are connect to the main C.B.A.

(1) Connect the D.V.M. to TL1001 (HOT) and TL1006 (GND) Adjust the VR1001 so that D.V.M. is 4.85+−0.025V.

2. CAMERA 3.5V ADJUSTMENT

Purpose:
To properly calibrate the voltage the 3.53V DC+−0.025V.

Symptom of Misadjustment:
All circuits in N Unit will not operate properly.

TP	ADJ.	MODE	INPUT
TL1002 (HOT) TL1006 (GND)	VR1002	S-VHS CAMERA RECORDING (EIS ON)	
TAPE	**M. EQ.**	**SPEC.**	
S-VHS BLANK TAPE	D.V.M.	3.53+−0.025V	

Note:
Sensor, process, and camera operation C.B.A. are connect to the main C.B.A.
Turn the power sw on and then set EIS system to the ON position.

(1) Connect the D.V.M. to the TL1002 (HOT) and TL1006 (GND) Adjust the VR1002 so that D.V.M. is 3.53+−0.025V.

3. CAMERA 9V REGULATOR

TP	ADJ.	MODE	INPUT
TL1003 (HOT) TL1006 (GND)	VR1003	S-VHS CAMERA RECORDING (EIS ON)	
TAPE	**M. EQ.**	**SPEC.**	
S-VHS BLANK TAPE	D.V.M.	8.70+0.05V −0.05V	

Note:
Digital Zoom must be set to the ON position.

(1) Connect the D.V.M. to TL1003 (HOT) and TL1006 (GND) Adjust the VR1003 so that D.V.M. is 8.70+−0.05V.

SERVO SECTION

4. PG SHIFTER ADJUSTMENT

Purpose:
Determine the Head Switching point during play-back.

Symptom of Misadjustment:
May cause Head Switching Noise and/or Vertical jitter in the picture.

TP	ADJ.	MODE	INPUT
B6001 ⑥ (CKJ6) VIDEO OUT	VR6201	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFM8080HQFP PORTION 2	OSCILLO- SCOPE	7.5H±0.5H	

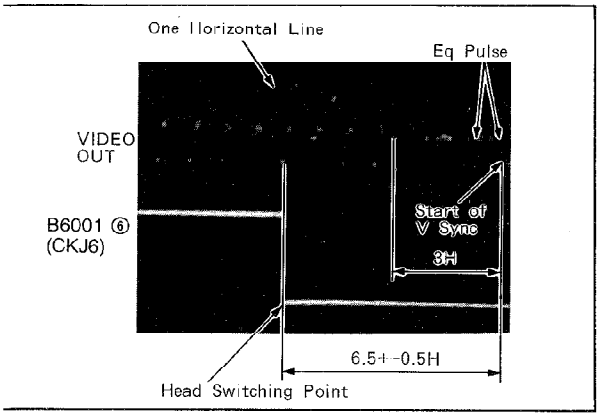


Fig. V2

LUMINANCE & CHROMINANCE SECTION

5. S-VHS MODULATOR LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TL3003	VR3004	S-VHS STOP	COLOUR BAR B6001 ⑩ (CKJ ⑩)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	0.34+−0.01Vp-p	

1. Connect the jumper wire between TEST MODE PIN 7 and PIN 11.
2. Supply Colour Bar signal to TEST MODE PIN 10 through 100uF capacitor.
3. Connect the oscilloscope to TL3003.
4. Adjust the VR3004 so that signal level is 0.34+−0.01Vp-p.

6. RECORDING CURRENT ADJUSTMENT
REC CHROMA LEVEL ADJUSTMENT

Purpose:
Set the optimum Record Chroma Level.

Symptom of Misadjustment:
If the Record Chroma Level is too high, Beats may be seen in the picture. If the Level is too low, Picture will be Black and White.

TP	ADJ.	MODE	INPUT
TL5002 (HOT) TL5001 (GND)	VR8001	S-VHS REC	DARK PICTURE
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	32+−2mVp-p	

Note 1:
Cover the Lens with black cap.

Note 2:
Minimize the luminance recording current by turning VR3001 before this adjustment.

1. Connect the oscilloscope to TL5002 (HOT) and TL5001 (GND).
2. Make recording with SP mode.
3. Eliminate luminance signal by turning off.
4. Adjust the VR8001 so that chroma level is 32+−2mVp-p.

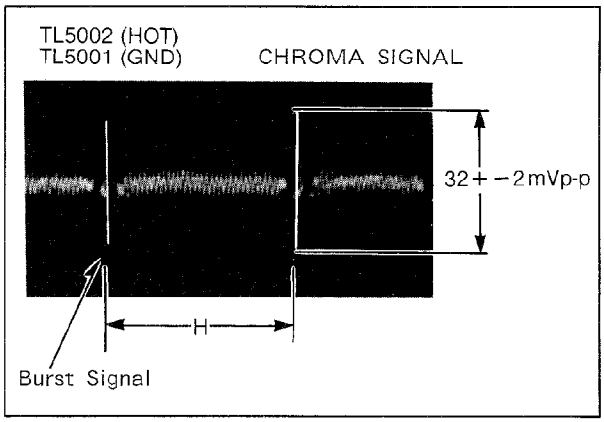


Fig. V3

7. LUMINANCE RECORDING CURRENT ADJUSTMENT

Purpose:
Set the optimum Recording Luminance Level.

Symptom of Misadjustment:
If the Record Luminance Level is too high video may overload.
If the Level is too low, the S/N Ratio deteriorates.

TP	ADJ.	MODE	INPUT
TL5002 (HOT) TL5001 (GND)	VR3001	S-VHS REC	DARK PICTURE
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	110+−5mVp-p	

Note:
Cover the Lens with black cap.

1. Connect the oscilloscope to TL5002 (HOT) and TL5001 (GND).
2. Make recording with SP mode.
3. Adjust the VR3001 so that luminance level is 110+−5mVp-p.

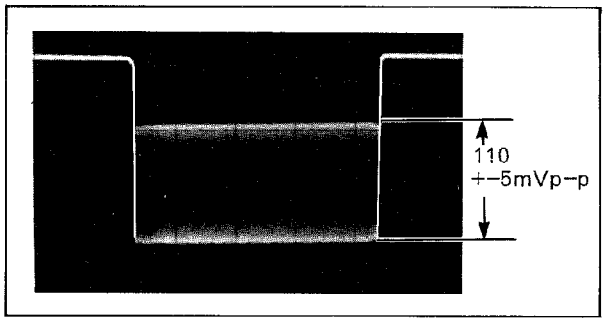


Fig. V4

8. YNR ADJUSTMENT

Purpose:
Improve the overall S/N Ratio especially in the Low Frequency component.

Symptom of Misadjustment:
The S/N Ratio is low.

TP	ADJ.	MODE	INPUT
TL3004	VR3005	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFM8080HQFP PORTION 2	OSCILLO-SCOPE	SIGNAL IS MINIMIZED (LESS THAN 50mV)	

9. TBC VCO (1) ADJUSTMENT

TP	ADJ.	MODE	INPUT
TL3504	VR3503	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	FREQ. COUNTER	15.625±0.1kHz	

1. Playback the blank tape at no recorded portion.
2. Connect the frequency counter to TL3504.
3. Adjust VR3503 so that frequency is 15.625±0.1kHz.

10. TBC VCO (2) ADJUSTMENT

TP	ADJ.	MODE	INPUT
TL3507	VR3501	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	FREQ. COUNTER	17.73±0.4MHz	

1. Playback the blank tape at no recorded portion.
2. Connect the frequency counter to TL3507.
3. Adjust VR3501 so that frequency is 17.73±0.4MHz.

11. LCD BIAS ADJUSTMENT

TP	ADJ.	MODE	INPUT
TL3503	VR3505	PLAY	VIDEO SWEEP SIGNAL B6001 ⑩
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	MAXIMIZED AT 4MHz	

1. Set the sweep generator output as shown below.

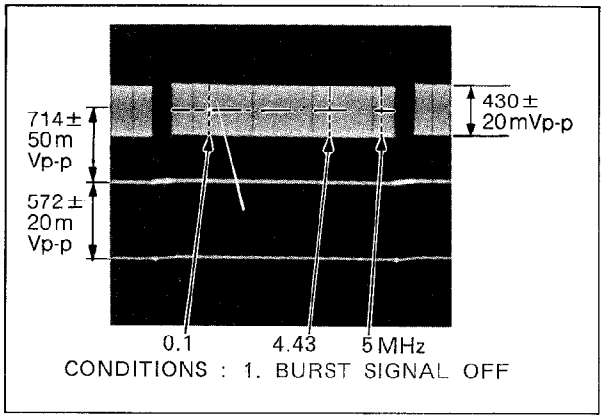


Fig. V5

2. Connect a jumper between B6001 ⑦ (CKJ ⑦) and B6001 ⑪ (CKJ ⑪).
3. Supply sweep signal to B6001 ⑩ (CKJ ⑩) through 100uF capacitor.
4. Playback the blank tape at no recorded portion.
5. Adjust VR3505 so that level at 4MHz become maximum.

12. PB Y LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
VIDEO OUT	VR3504	VHS SELF RECORDING/ PB	COLOUR BAR B6001 ⑩
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	1.0±0.05Vp-p	

1. Terminate the video out by 75 ohm.
2. Connect a jumper wire between B6001 ⑦ and B6001 ⑪.
3. Supply colour bar signal to B6001 ⑩.
4. Record the signal a few minutes.
5. Connect an oscilloscope to video out.
6. Playback the recorded signal.
7. Adjust VR3504 so that Y level is 1.0±0.05Vp-p.

13. S-VHS VIDEO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
VIDEO OUT	VR3006	S-VHS SELF RECORDING	COLOUR BAR B6001 ⑩ (CKJ ⑩)
TAPE	**M. EQ.**	**SPEC.**	
S-VHS BLANK TAPE	OSCILLO-SCOPE	A: 1.0+−0.1Vp-p	

1. Terminate the video out by 75 ohm.
2. Connect a jumper wire between B6001 ⑦ and B6001 ⑪.
3. Supply Colour Bar signal to Test Mode Pin 10.
4. Record the signal a few minutes.
5. Connect an oscilloscope to Video out.
6. Playback the recorded signal.
7. Adjust VR3006 until signal level is A−1.0+−0.1Vp-p.

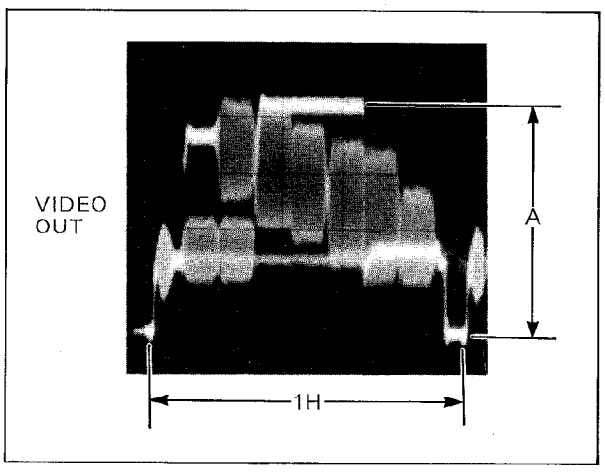


Fig. V6

14. COS EQ ADJUSTMENT

TP	ADJ.	MODE	INPUT
S-VHS LUMI OUT	VR3007	S-VHS SELF RECORDING/ PB	VIDEO SWEEP SIGNAL B6001 ⑩ (CKJ ⑩)
TAPE	**M. EQ.**	**SPEC.**	
S-VHS BLANK TAPE	VIDEO SEEP/ OSCILO-SCOPE	A=−4±1dB (62.5%)	

1. Set the sweep generator output as shown below.

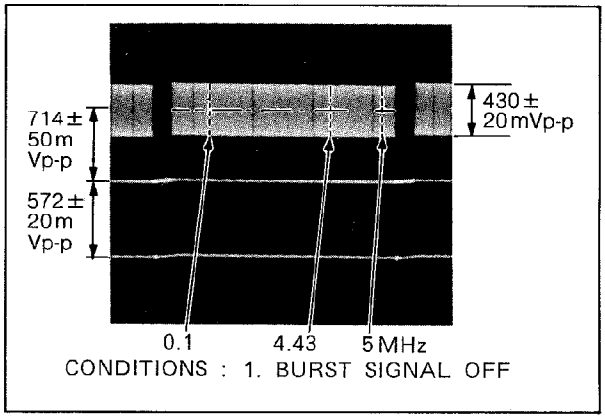


Fig. V7

2. Connect a jumper between B6001 ⑦ (CKJ ⑦) and B6001 ⑪ (CKJ ⑪).
3. Supply sweep signal to B6001 ⑩ (CKJ ⑩) through 100uF capacitor.
4. Record the signal for a about ten minutes.
5. Playback the recorded signal.
6. Adjust VR3007 so that level at 4MHz is within spec. as shown in Fig. V8.

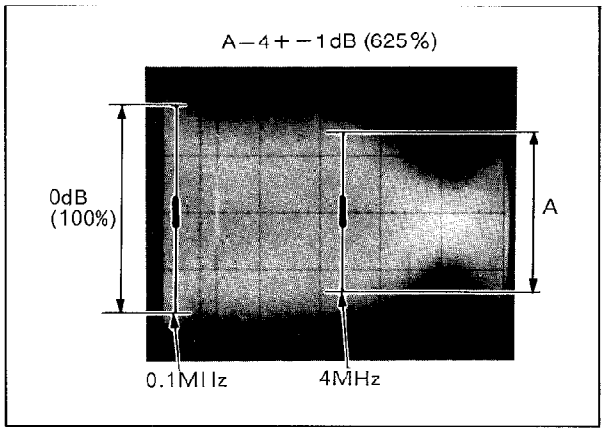


Fig. V8

AUDIO SECTION

15. AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TL4001 (HOT) TL4002 (GND)	VR4002	REC	disconnect P4001
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	oscilloscope (V.T.V.M.)	8.5±0.3mVp-p (3±0.1mVrms)	

Note:
Connector (P4001) must be disconnected.
Set the normal audio mode.

1. Connect an oscilloscope to TL4001 (HOT) and TL4002 (GND).
2. Make recording with SP mode.
3. Adjust VR4002 so that audio bias current is 8.5+−0.3mVp-p.

16. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4001	VHS REC/PB	1kHz Audio 8.9±0.5mVp-p (−50dBV±0.5dB) CKR1 (P4001 ③) IN CKR2 (P4001 ②) GND
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERATOR/ OSCILLO- SCOPE (V.T.V.M)	1.1+−0.1Vp-p (+8+−0.5dB)	

Note:
Audio bias current adjustment must be completed before the adjustment.

1. Set the normal audio mode.
2. Supply the audio signal (1kHz/−50dBV+−0.5dB sine-wave) to audio circuit through the test point.
3. Audio VR4001 so that the level is PB Level 1.1+−0.1Vp-p. (−8dB+−0.5dB)

Hi-Fi AUDIO SECTION

17. Hi-Fi AUDIO RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TL5003 (HOT) TL5001 (GND)	VR4502	S-VHS RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
S-VHS BLANK TAPE	OSCILLO- SCOPE	200+−5mVp-p	

1. Connector (P4001) must be disconnected.
2. Connect an OSCILLOSCOPE to TL5003 (HOT) and TL5001 (GND).
3. Adjust VR4502 so that the Audio recording current is 200+−5mVp-p as shown below.

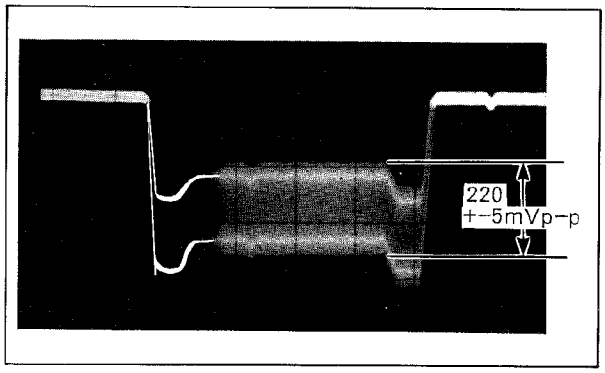


Fig. V9

18. AUDIO MUTING ADJUSTMENT

TP	ADJ.	MODE	INPUT
B5001-3	VR4501	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFM8080HQFP PORTION 2	OSCILLO- SCOPE		

Note:
Tape Interchangeability Adjustment must be completed before this adjustment.

1. Playback the Alignment tape.
2. Push the tracking Button until signal level at B5001-3 becomes maximum.
3. Adjust VR4501 to counter-clockwise until sound mode change to normal from Hi-Fi mode, and return it to clockwise until sound mode change to Hi-Fi from normal mode.

VITC SECTION

19. VITC SIGNAL LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
VIDEO OUT 75 ohm TERMINATED	VR3802	VHS REC PAUSE	GRAY SCALE CHART
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	V/S 1.8+−0.07 (540+−20mVp-p)	

Note:
Cover the Lens with black cap.

1. Set the unit to VHS-Movie. Mode and set to Rec Pause mode.
2. Adjust the VR3802 so that ratio of V and S is 1.8+−0.07 as shown below.

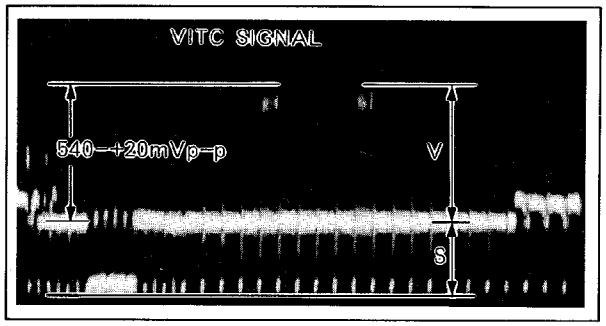
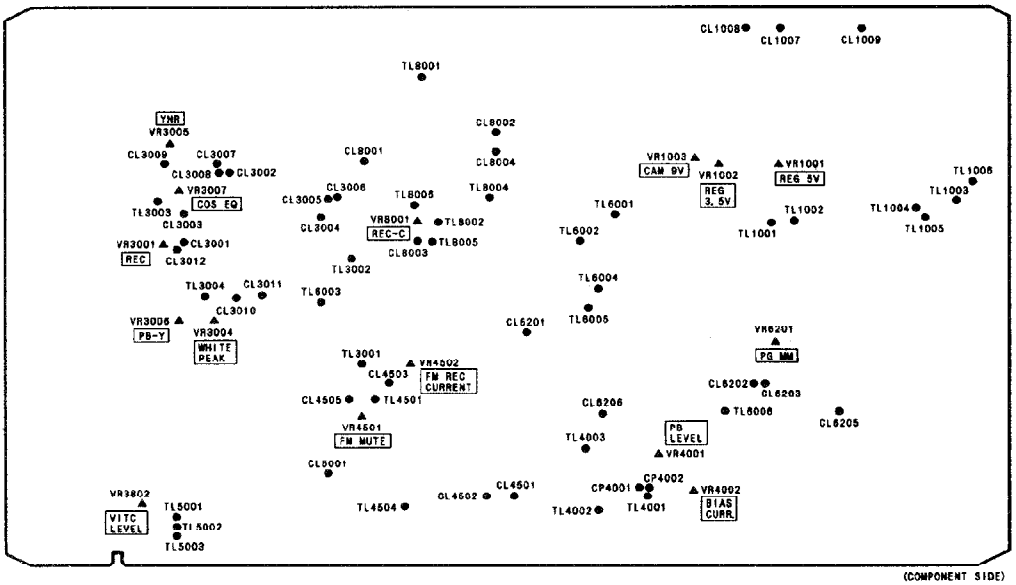


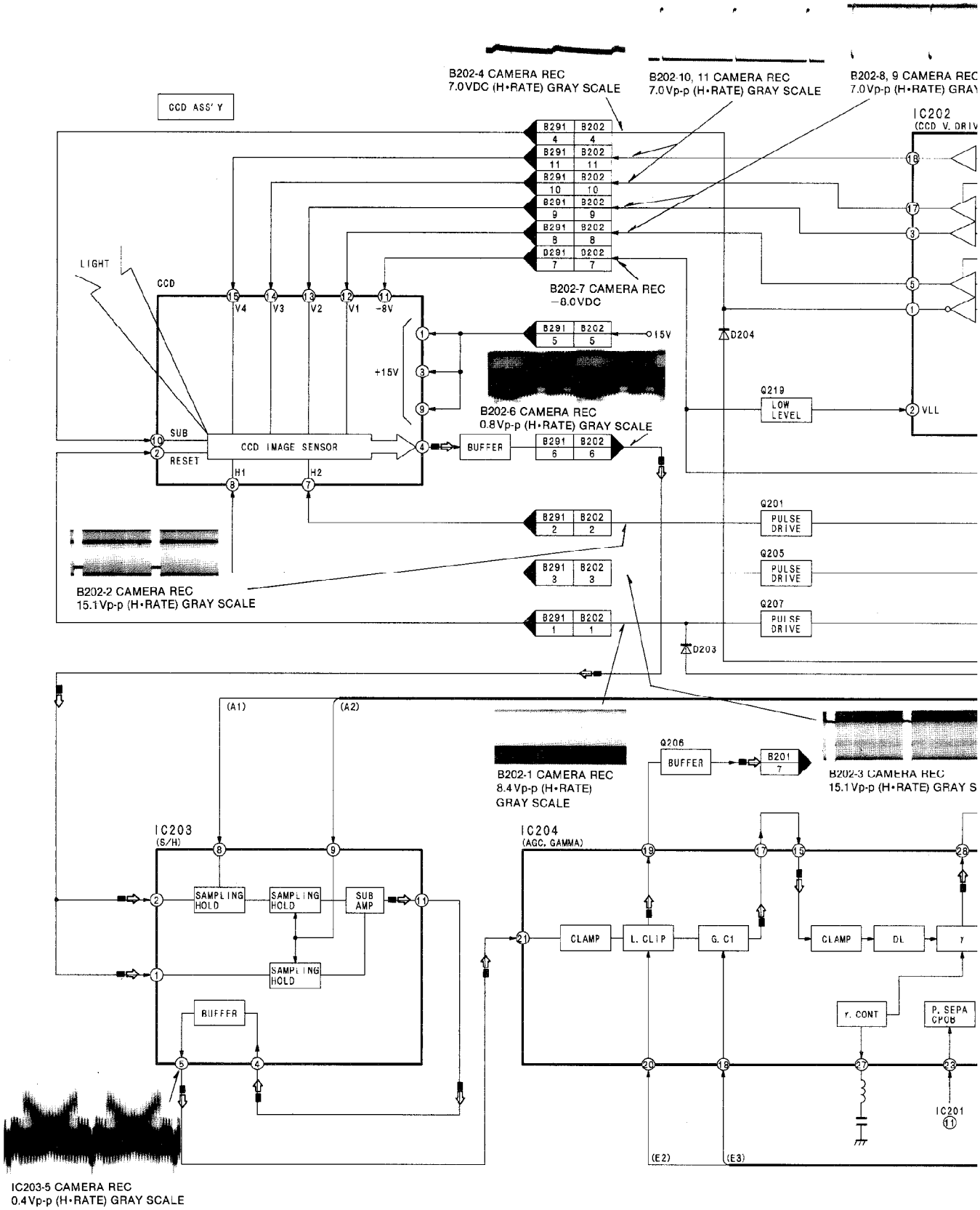
Fig. V10

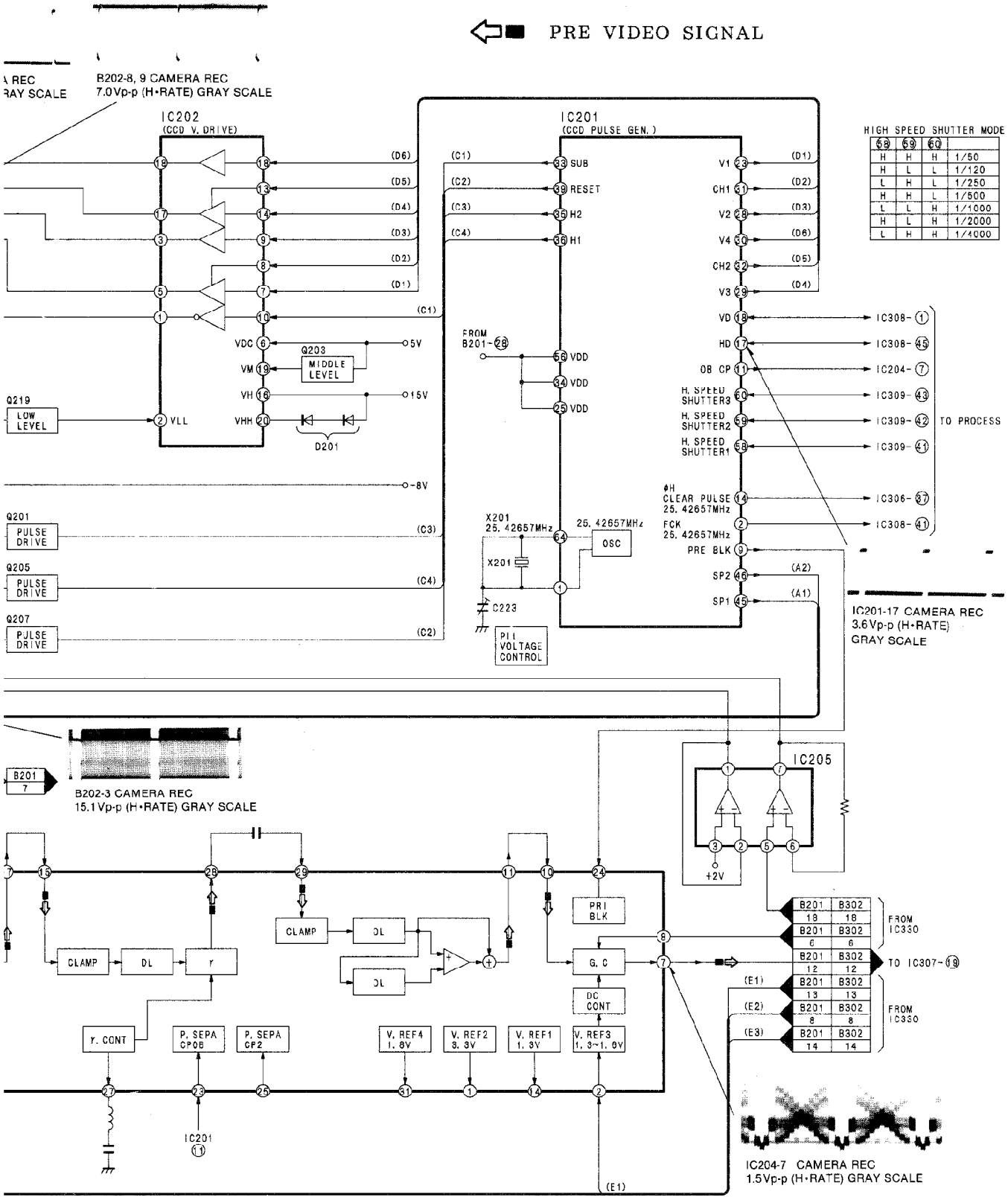
LOCATION OF TEST POINTS AND CONTROLS

MAIN C.B.A.



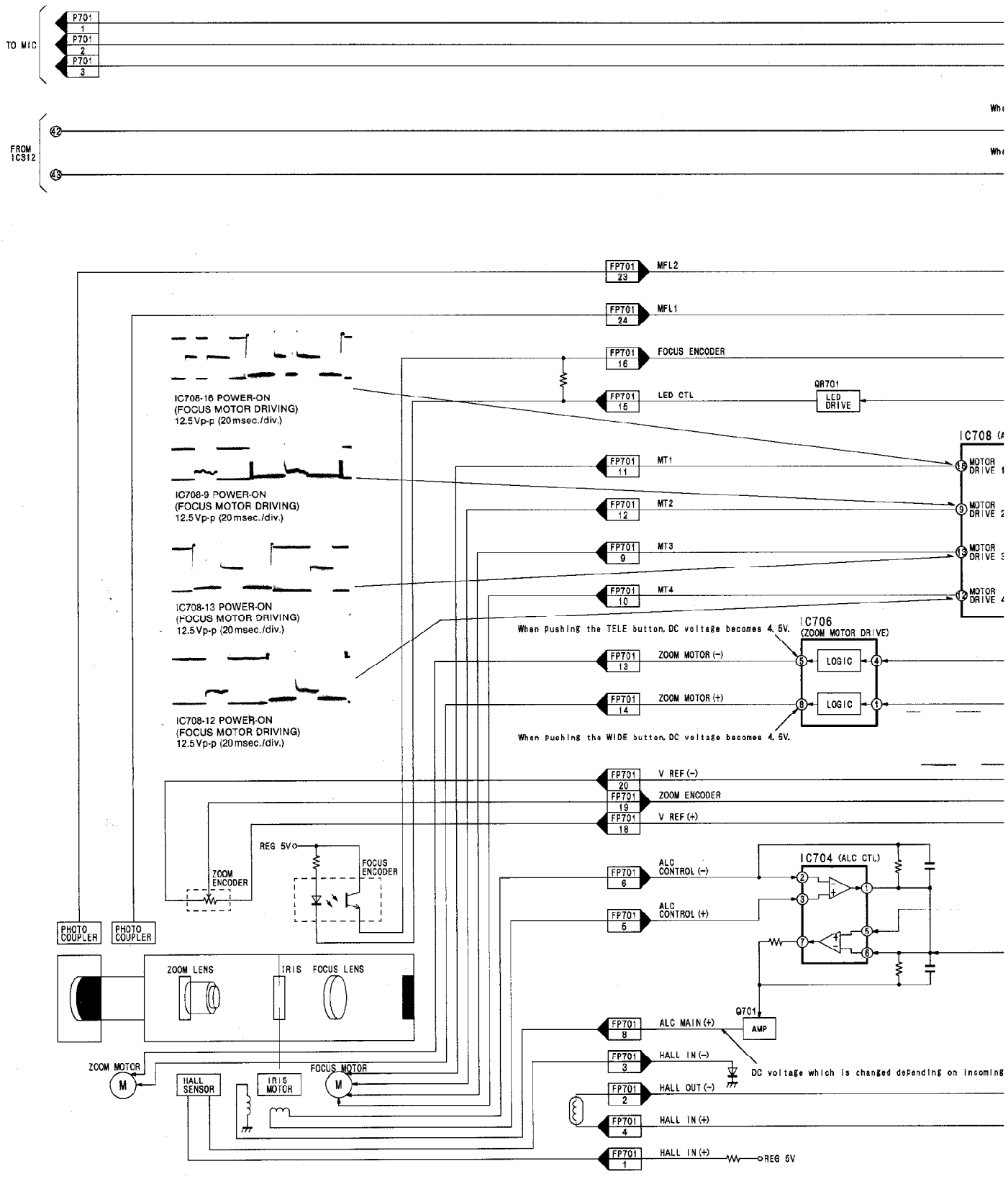
SECTION 3
BLOCK DIAGRAM & SCHEMATIC DIAGRAMS
3-1. CCD DRIVE BLOCK DIAGRAM

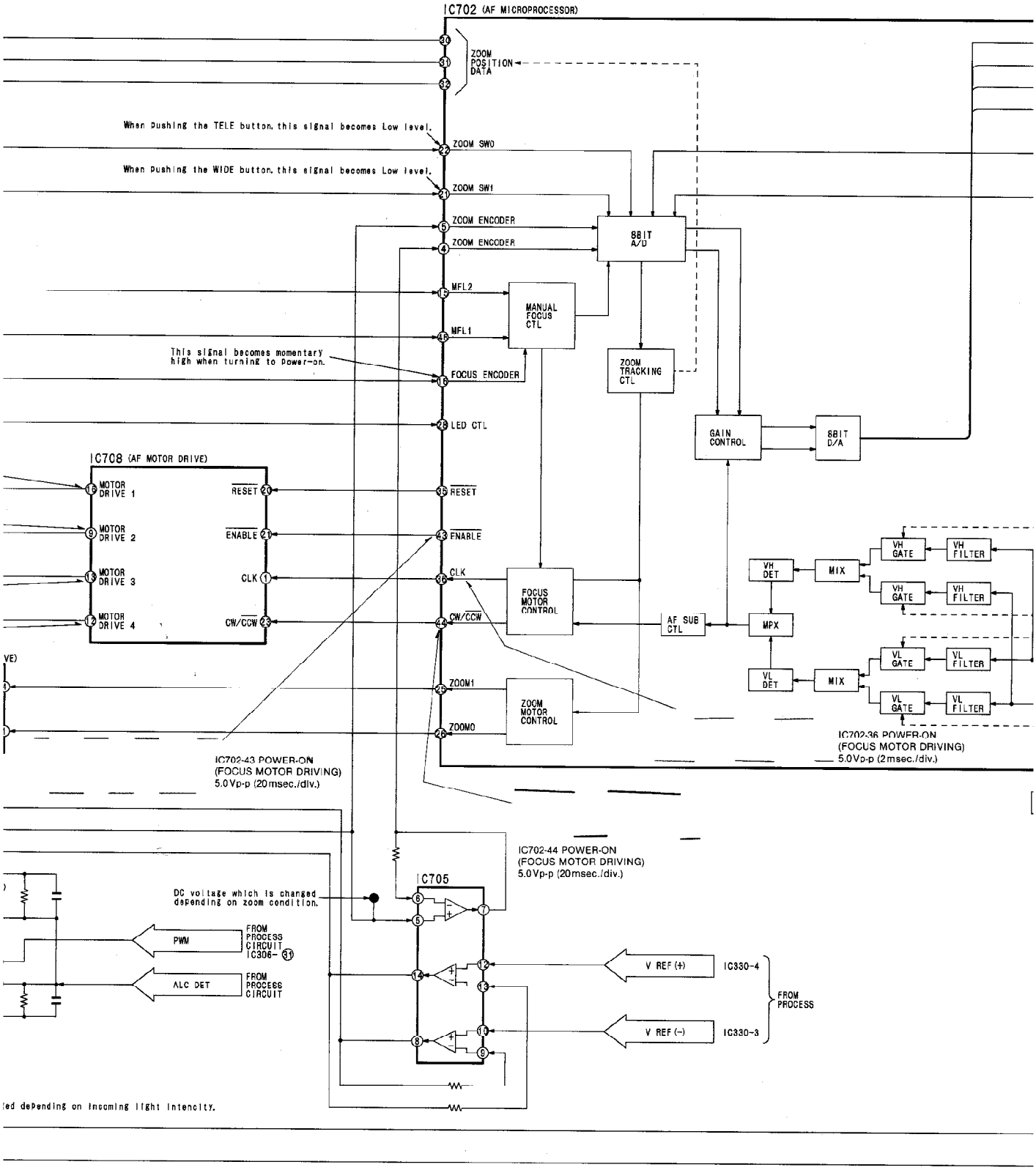


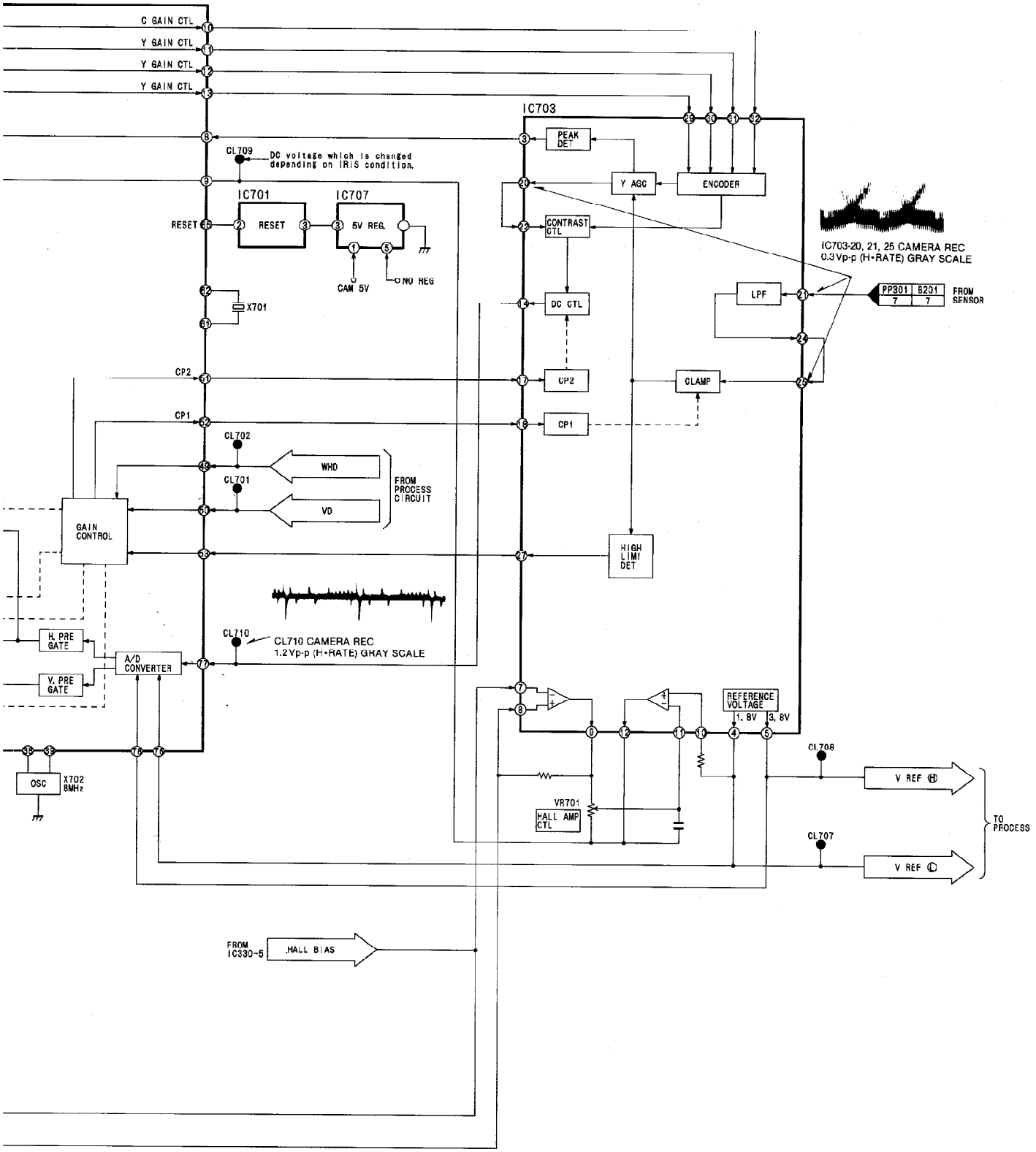


Next Page:
AUTO FOCUS Section

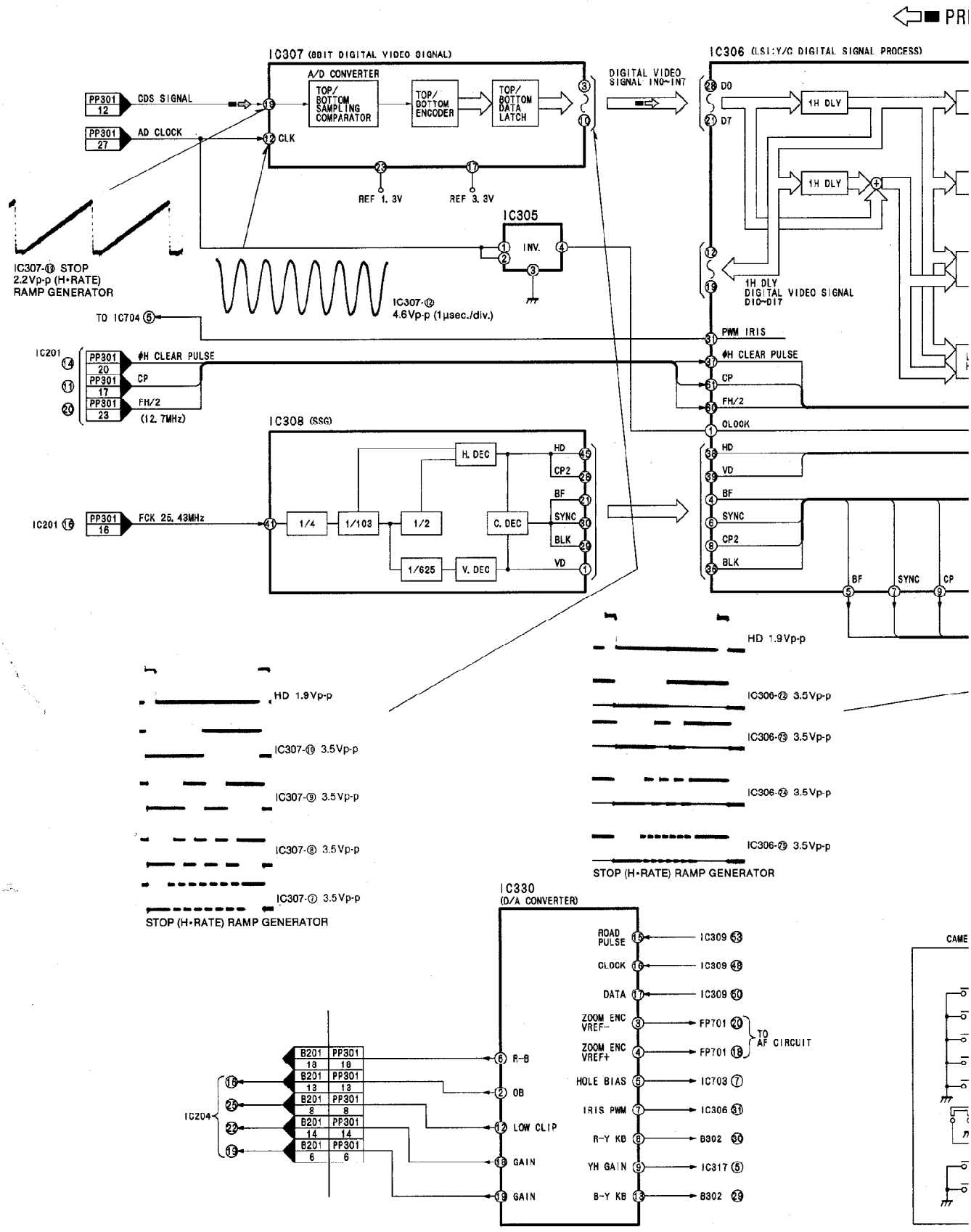
3-2. AUTO FOCUS BLOCK DIAGRAM

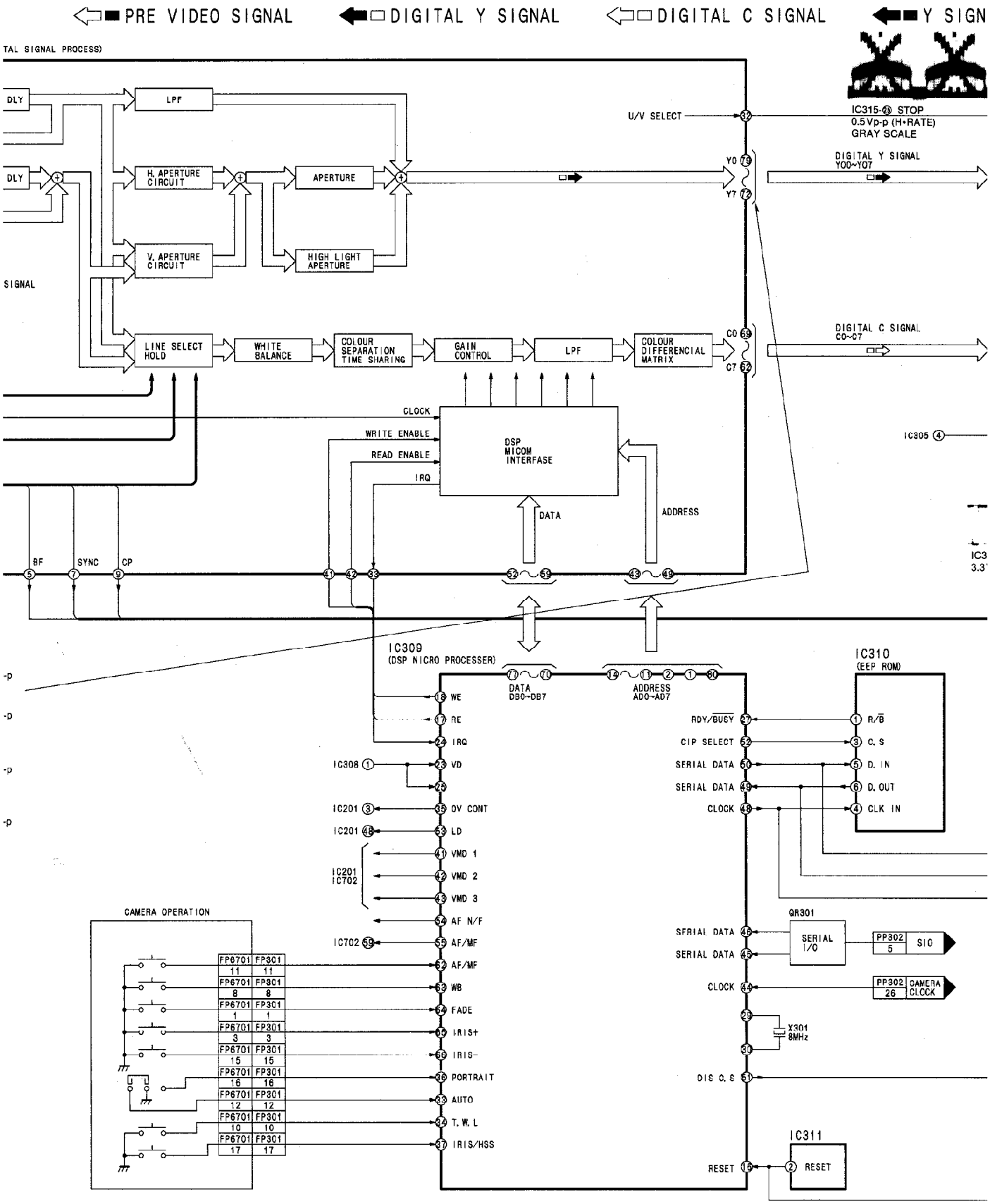


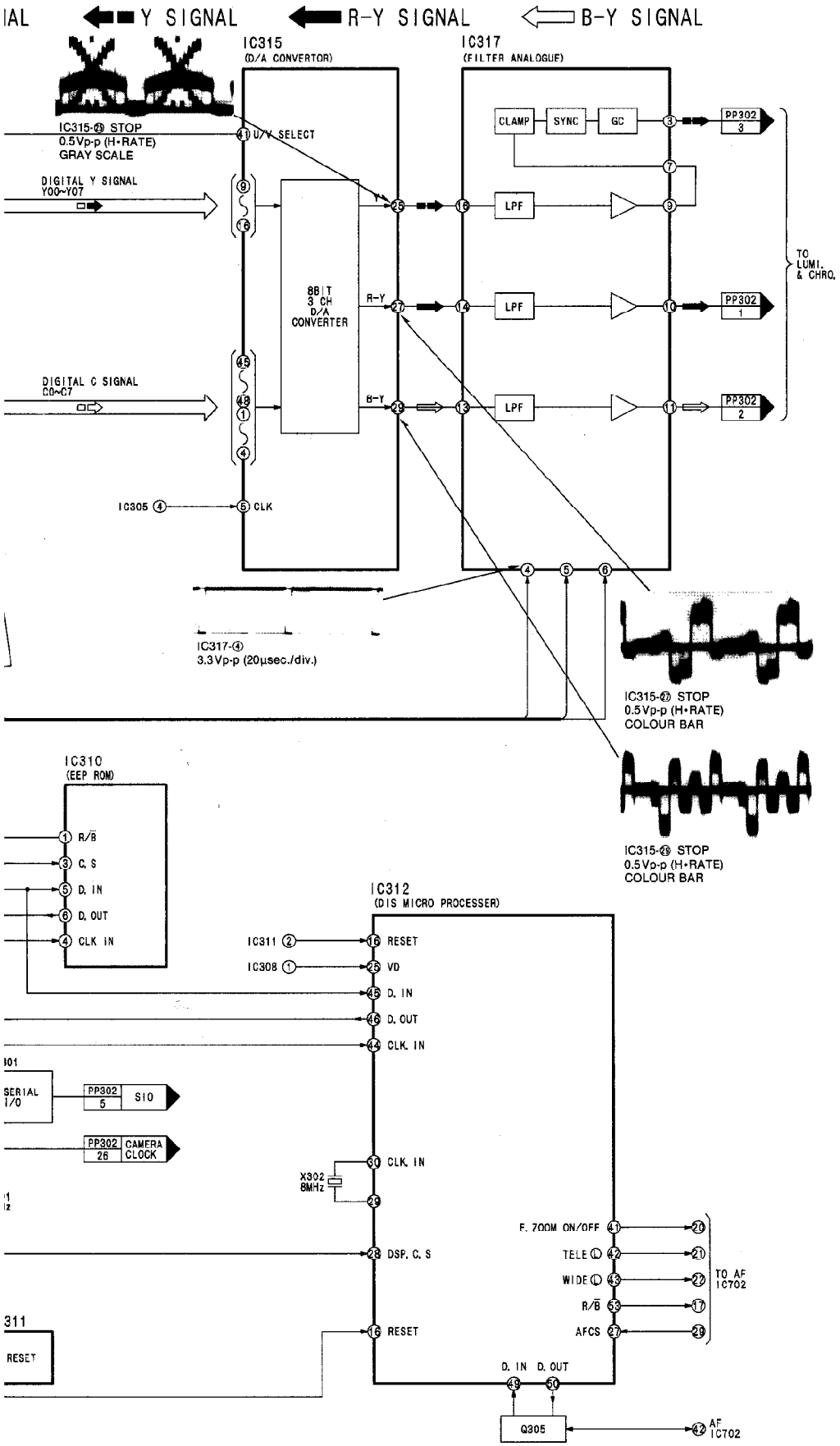

IC702 (AF MICROPROCESSOR)
ZOOM POSITION DATA
When Pushing the TELE button, this signal becomes Low level.
ZOOM SW0
When Pushing the WIDE button, this signal becomes Low level.
ZOOM SW1
ZOOM ENCODER
ZOOM ENCODER
8BIT A/D
MFL2
MFL1
MANUAL FOCUS CTL
This signal becomes momentary high when turning to Power-on.
FOCUS ENCODER
ZOOM TRACKING CTL
LED CTL
GAIN CONTROL
8BIT D/A
IC708 (AF MOTOR DRIVE)
MOTOR DRIVE 1
MOTOR DRIVE 2
MOTOR DRIVE 3
MOTOR DRIVE 4
RESET
ENABLE
CLK
CW/CCW
FOCUS MOTOR CONTROL
AF SUB CTL
VH DET
MIX
VH GATE
VH FILTER
MPX
VL DET
VL GATE
VL FILTER
ZOOM1
ZOOM0
ZOOM MOTOR CONTROL
IC702-43 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)
IC702-36 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (2msec./div.)
IC702-44 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)
IC705
DC voltage which is changed depending on zoom condition.
PWM
FROM PROCESS CIRCUIT IC306-31
ALC DET
FROM PROCESS CIRCUIT
V REF (+)
IC330-4
V REF (-)
IC330-3
FROM PROCESS
ed depending on incoming light intencity.


C GAIN CTL
Y GAIN CTL
Y GAIN CTL
Y GAIN CTL
IC703
PEAK DET
Y AGC
ENCODER
CL709
DC voltage which is changed depending on IRIS condition.
IC701
IC707
RESET
RESET
5V REG.
CAM 5V
NO REG
X701
CONTRAST CTL
DC CTL
IC703-20, 21, 25 CAMERA REC
0.3Vp-p (H•RATE) GRAY SCALE
LPF
PP301 7
B201 7
FROM SENSOR
CP2
CP2
CLAMP
CP1
CP1
CL702
WHD
CL701
VD
FROM PROCESS CIRCUIT
GAIN CONTROL
HIGH LIMIT DET
CL710
CL710 CAMERA REC
1.2Vp-p (H•RATE) GRAY SCALE
H. PRE GATE
V. PRE GATE
A/D CONVERTER
REFERENCE VOLTAGE
1. 8V
3. 8V
CL708
V REF (H)
OSC
X702 8MHz
VR701
HALL AMP CTL
CL707
V REF (L)
TO PROCESS
FROM IC330-5
HALL BIAS

3-3. PROCESS BLOCK DIAGRAM

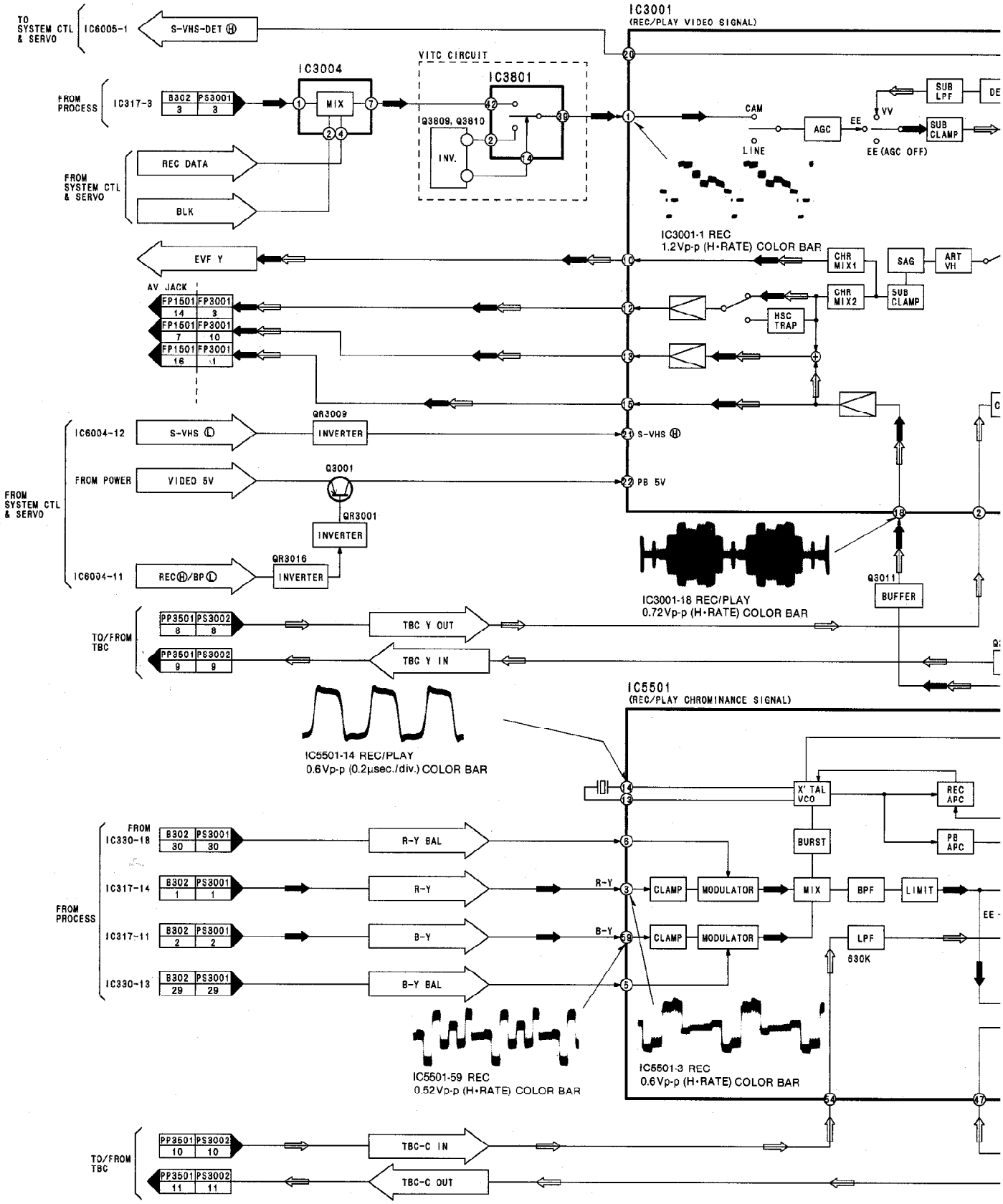


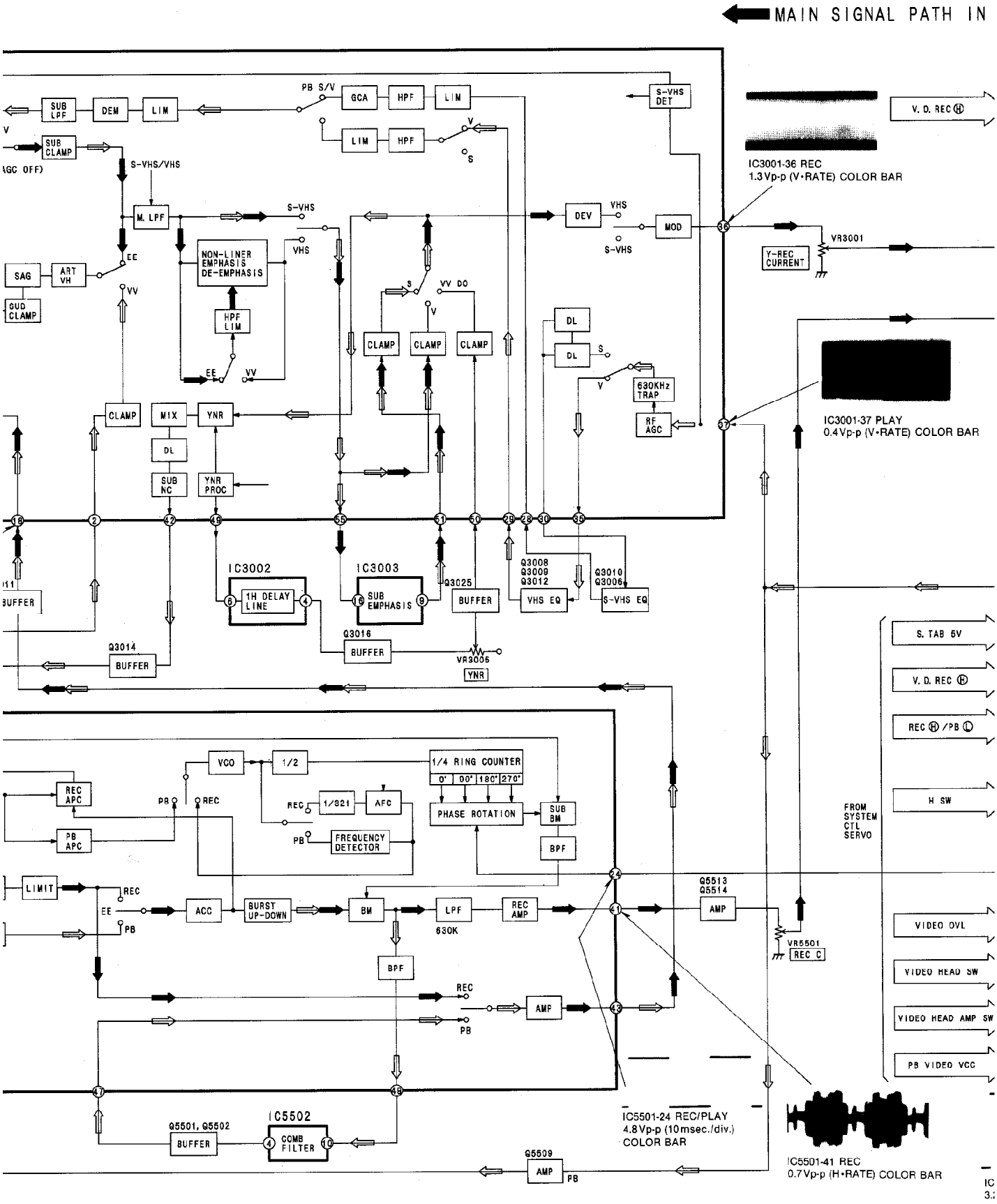

PRE VIDEO SIGNAL
DIGITAL Y SIGNAL
DIGITAL C SIGNAL
Y SIGN
TAL SIGNAL PROCESS)
DLY
LPF
H. APERTURE CIRCUIT
APERTURE
V. APERTURE CIRCUIT
HIGH LIGHT APERTURE
SIGNAL
LINE SELECT HOLD
WHITE BALANCE
COLOUR SEPARATION TIME SHARING
GAIN CONTROL
LPF
COLOUR DIFFERENCIAL MATRIX
U/V SELECT
IC315-㉙ STOP
0.5Vp-p (H•RATE)
GRAY SCALE
Y0
Y7
DIGITAL Y SIGNAL
Y00~Y07
C0
C7
DIGITAL C SIGNAL
C0~C7
CLOCK
WRITE ENABLE
READ ENABLE
IRQ
DSP MICOM INTERFASE
DATA
ADDRESS
IC305
BF
SYNC
CP
IC309
(DSP MICRO PROCESSER)
DATA DB0~DB7
ADDRESS AD0~AD7
WE
RE
IRQ
VD
OV CONT
LD
VMD 1
VMD 2
VMD 3
AF N/F
AF/MF
WB
FADE
IRIS+
IRIS-
PORTRAIT
AUTO
T. W. L
IRIS/HSS
IC308
IC201
IC702
IC310
(EEP ROM)
RDY/BUSY
CIP SELECT
SERIAL DATA
SERIAL DATA
CLOCK
R/B
C. S
D. IN
D. OUT
CLK IN
QR301
SERIAL I/O
PP302 5 SIO
PP302 26 CAMERA CLOCK
X301 8MHz
DIS C. S
IC311
RESET
CAMERA OPERATION
FP6701 11 FP301 11
FP6701 8 FP301 8
FP6701 1 FP301 1
FP6701 3 FP301 3
FP6701 15 FP301 15
FP6701 16 FP301 16
FP6701 12 FP301 12
FP6701 10 FP301 10
FP6701 17 FP301 17



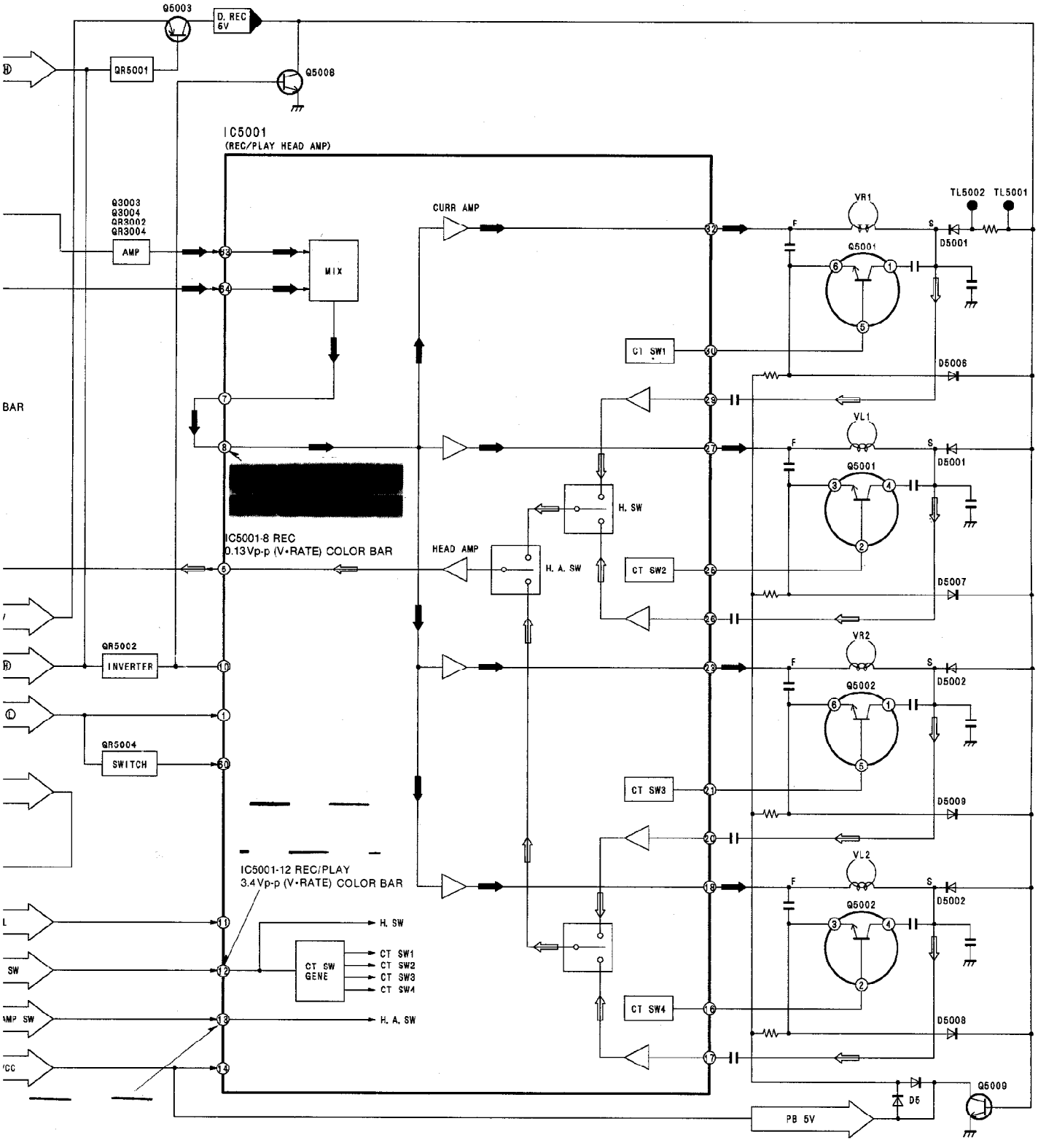
Next Page:
LUMI/CHRO & HA Section

3-4. LUMINANCE/CHROMINANCE & HEAD AMP BLOCK DIAGRAM



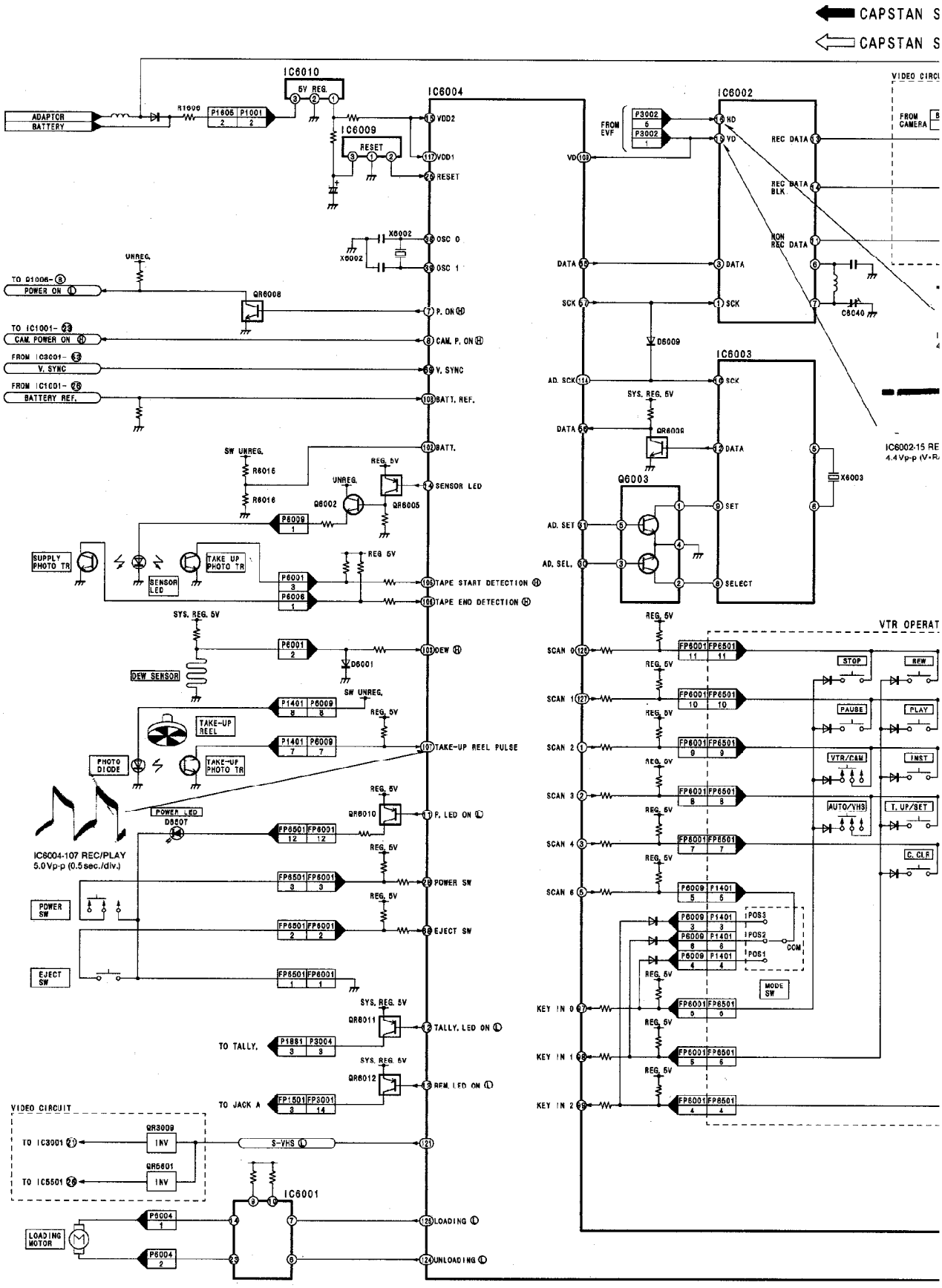

MAIN SIGNAL PATH IN
SUB LPF
DEM
LIM
PB S/V
GCA
HPF
LIM
S-VHS DET
V. D. REC Ⓗ
SUB CLAMP
S-VHS/VHS
M. LPF
S-VHS
DEV
VHS
MOD
S-VHS
IC3001-36 REC
1.3Vp-p (V•RATE) COLOR BAR
VR3001
Y-REC CURRENT
SAG
ART VH
EE
VV
SUB CLAMP
NON-LINER EMPHASIS DE-EMPHASIS
HPF LIM
VV DO
CLAMP
CLAMP
CLAMP
DL
DL
630KHz TRAP
RF AGC
IC3001-37 PLAY
0.4Vp-p (V•RATE) COLOR BAR
CLAMP
MIX
YNR
DL
SUB NC
YNR PROC
IC3002
1H DELAY LINE
IC3003
SUB EMPHASIS
Q3025
BUFFER
Q3008
Q3009
Q3012
VHS EQ
Q3010
Q3006
S-VHS EQ
Q3014
BUFFER
Q3016
BUFFER
VR3005
YNR
S. TAB 5V
V. D. REC Ⓗ
REC Ⓗ /PB Ⓛ
H SW
FROM SYSTEM CTL SERVO
VCO
1/2
1/4 RING COUNTER
0° 90° 180° 270°
REC APC
PB APC
PB
REC
REC
1/821
AFC
PB
FREQUENCY DETECTOR
PHASE ROTATION
SUB BM
BPF
LIMIT
REC
EE
PB
ACC
BURST UP-DOWN
BM
LPF
630K
REC AMP
Q5513
Q5514
AMP
VR5501
REC C
VIDEO OVL
VIDEO HEAD SW
VIDEO HEAD AMP SW
PB VIDEO VCC
BPF
REC
PB
AMP
IC5501-24 REC/PLAY
4.8Vp-p (10msec./div.)
COLOR BAR
IC5501-41 REC
0.7Vp-p (H•RATE) COLOR BAR
Q5501, Q5502
BUFFER
IC5502
COMB FILTER
Q5509
AMP
PB

IN REC MODE ⇦ MAIN SIGNAL PATH IN PLAYBACK MODE

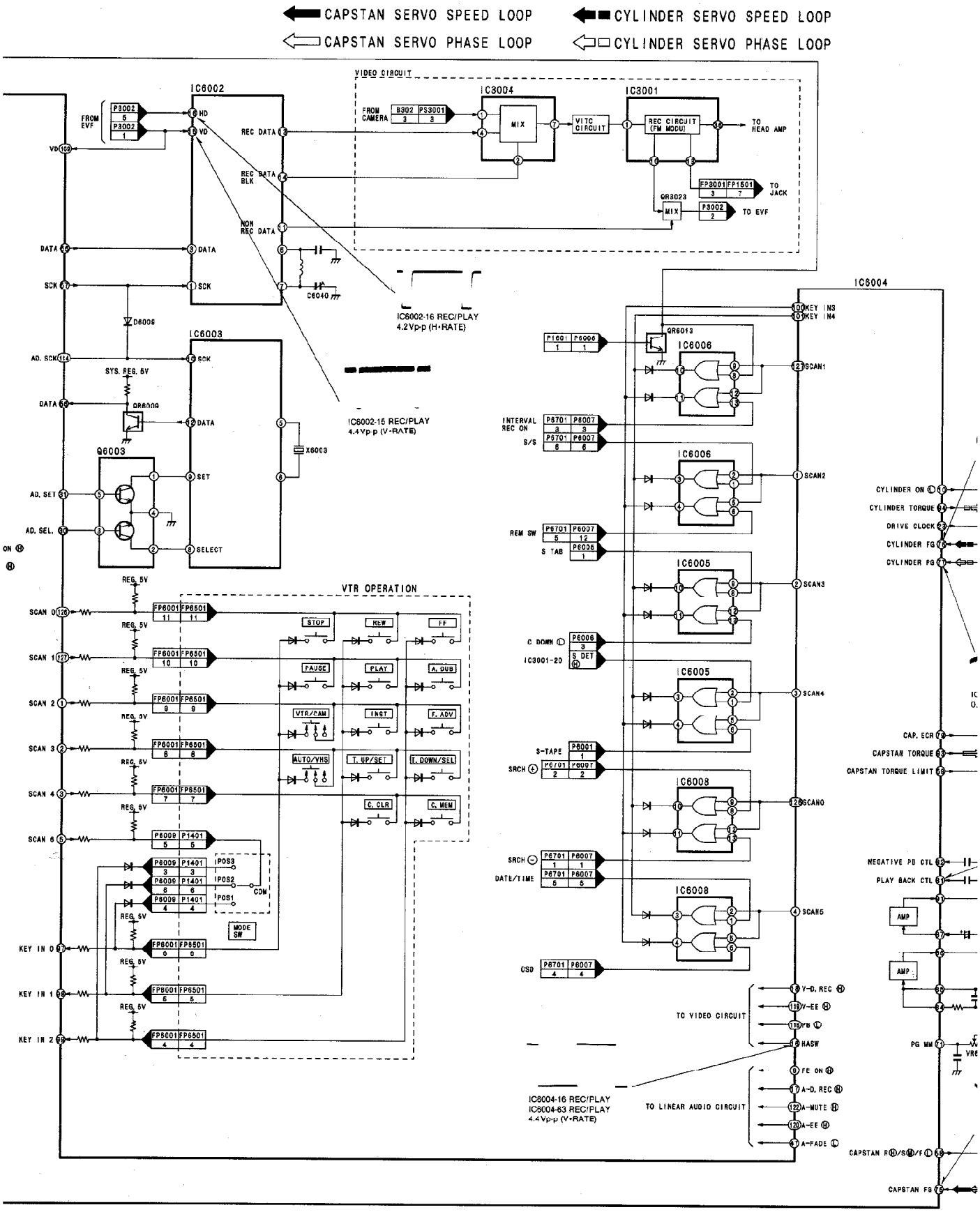


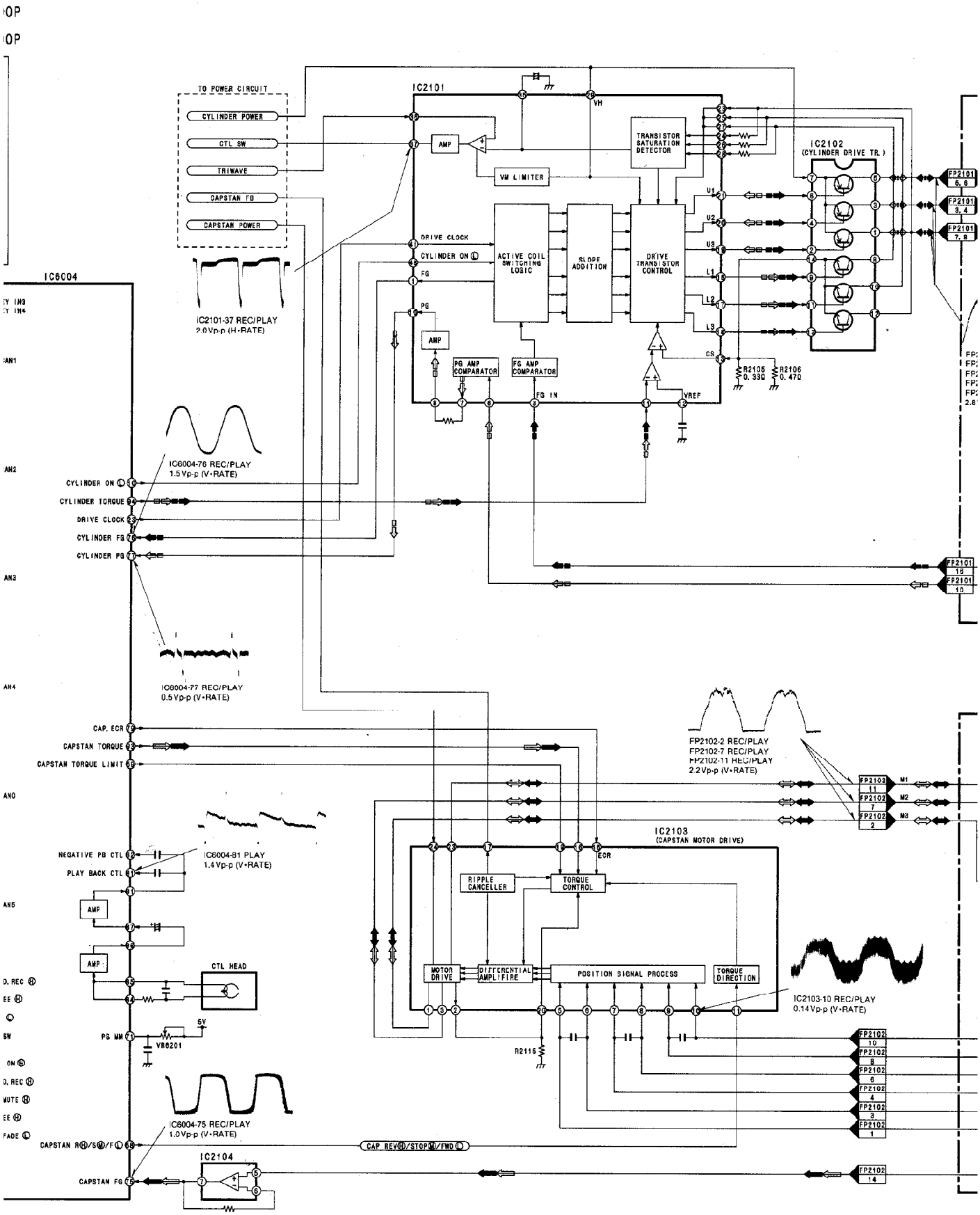
IC5001-13 REC/PLAY
3.2Vp-p (10msec./div.) COLOR BAR

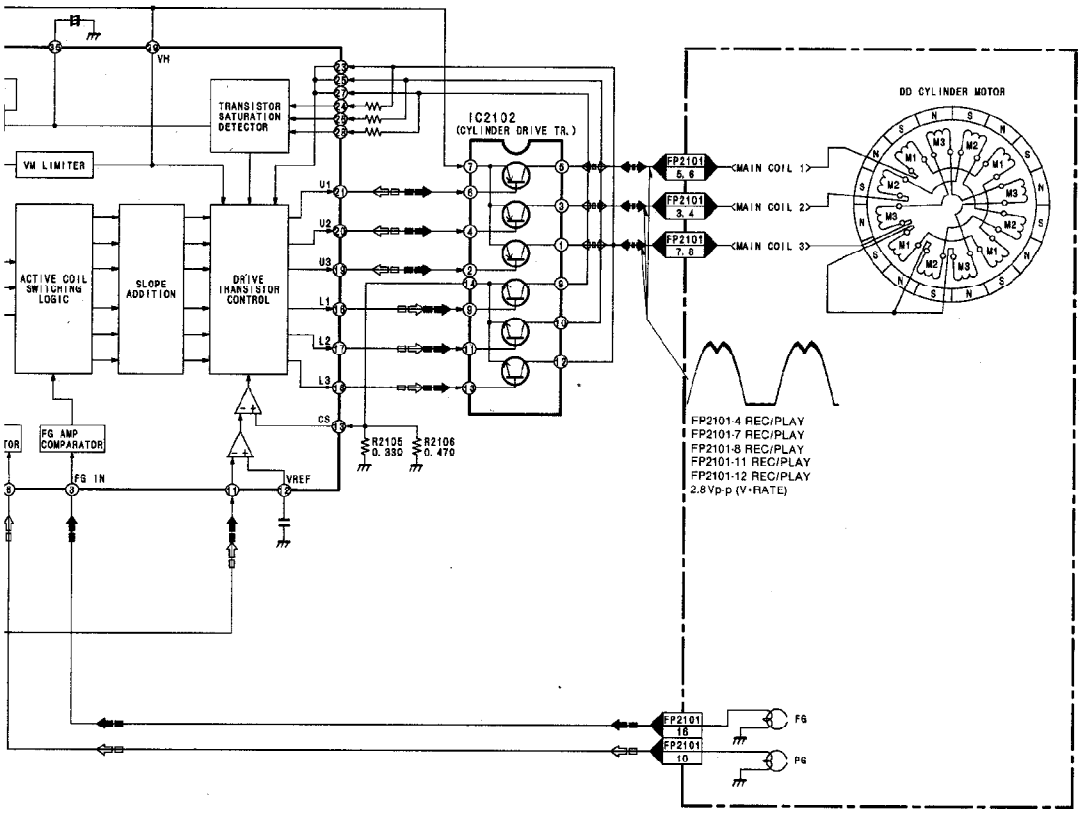
3-5. SYSTEM CONTROL & SERVO BLOCK DIAGRAM

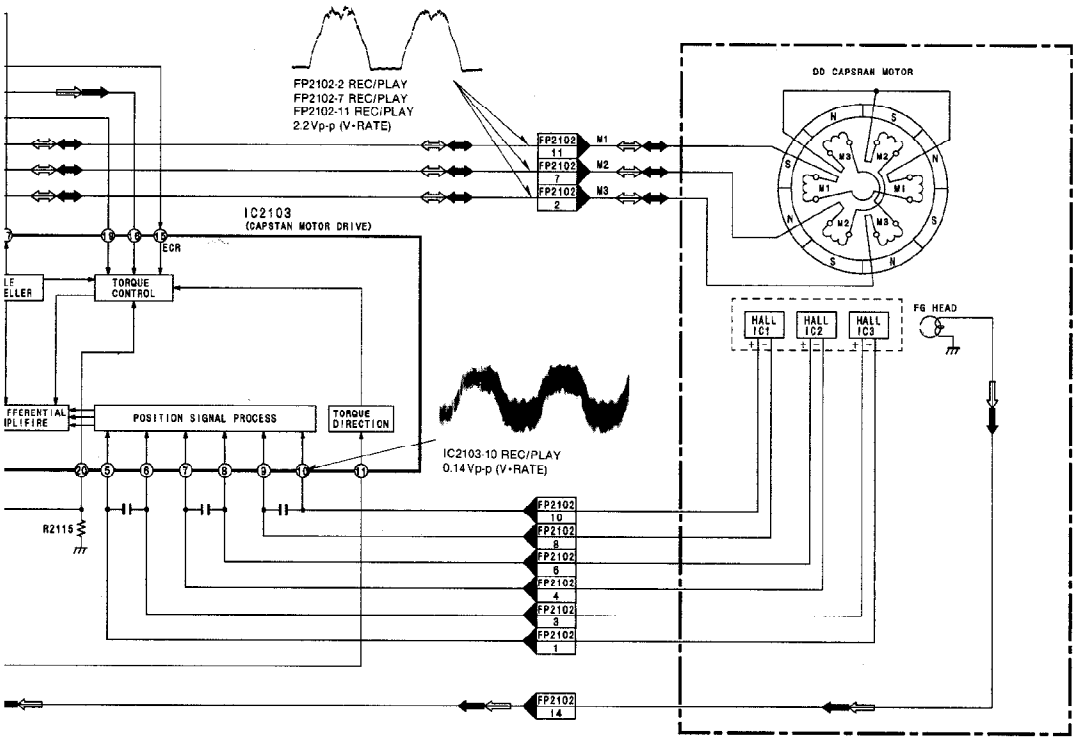


LOCK DIAGRAM

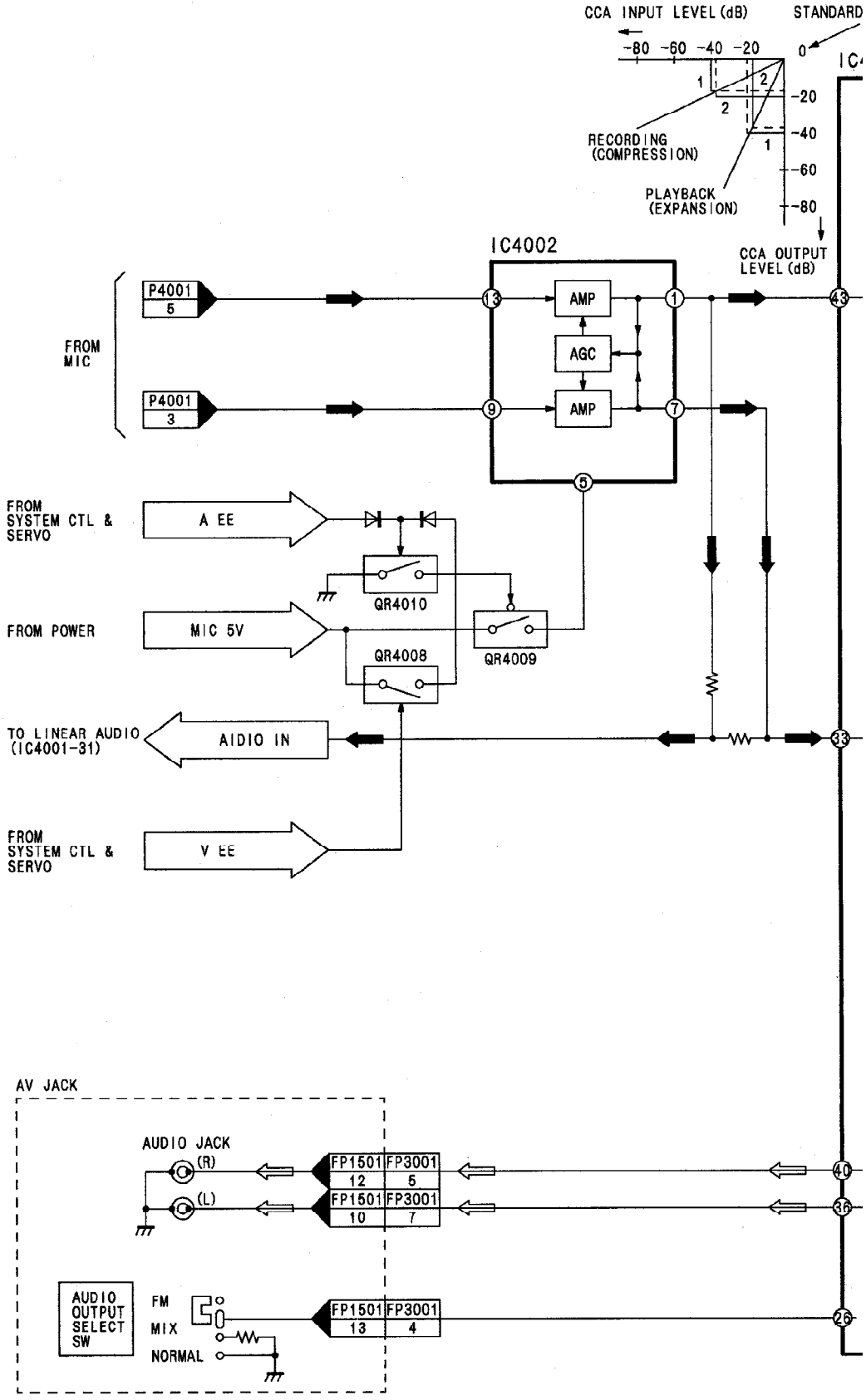



TO POWER CIRCUIT
CYLINDER POWER
CTL SW
TRIWAVE
CAPSTAN FB
CAPSTAN POWER
IC2101
VH
AMP
VM LIMITER
TRANSISTOR SATURATION DETECTOR
IC2102
(CYLINDER DRIVE TR.)
DRIVE CLOCK
CYLINDER ON
FG
PG
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
DRIVE TRANSISTOR CONTROL
U1
U2
U3
L1
L2
L3
CS
PG AMP COMPARATOR
FG AMP COMPARATOR
FG IN
VREF
R2105 0.33Ω
R2106 0.47Ω
IC2101-37 REC/PLAY
2.0Vp-p (H-RATE)
IC6004
IC6004-76 REC/PLAY
1.5Vp-p (V-RATE)
CYLINDER ON
CYLINDER TORQUE
DRIVE CLOCK
CYLINDER FG
CYLINDER PG
IC6004-77 REC/PLAY
0.5Vp-p (V-RATE)
CAP. ECR
CAPSTAN TORQUE
CAPSTAN TORQUE LIMIT
FP2102-2 REC/PLAY
FP2102-7 REC/PLAY
FP2102-11 REC/PLAY
2.2Vp-p (V-RATE)
IC2103
(CAPSTAN MOTOR DRIVE)
NEGATIVE PB CTL
PLAY BACK CTL
IC6004-81 PLAY
1.4Vp-p (V-RATE)
RIPPLE CANCELLER
TORQUE CONTROL
EOR
MOTOR DRIVE
DIFFERENTIAL AMPLIFIRE
POSITION SIGNAL PROCESS
TORQUE DIRECTION
CTL HEAD
PG MM
VR6201
5V
R2116
IC2103-10 REC/PLAY
0.14Vp-p (V-RATE)
IC6004-75 REC/PLAY
1.0Vp-p (V-RATE)
CAPSTAN R/S/F
CAP REV/STOP/FWD
IC2104
CAPSTAN FG
FP2101 6, 6
FP2101 3, 4
FP2101 7, 8
FP2101 15
FP2101 10
FP2102 11
FP2102 7
FP2102 2
FP2102 10
FP2102 8
FP2102 6
FP2102 4
FP2102 3
FP2102 1
FP2102 14

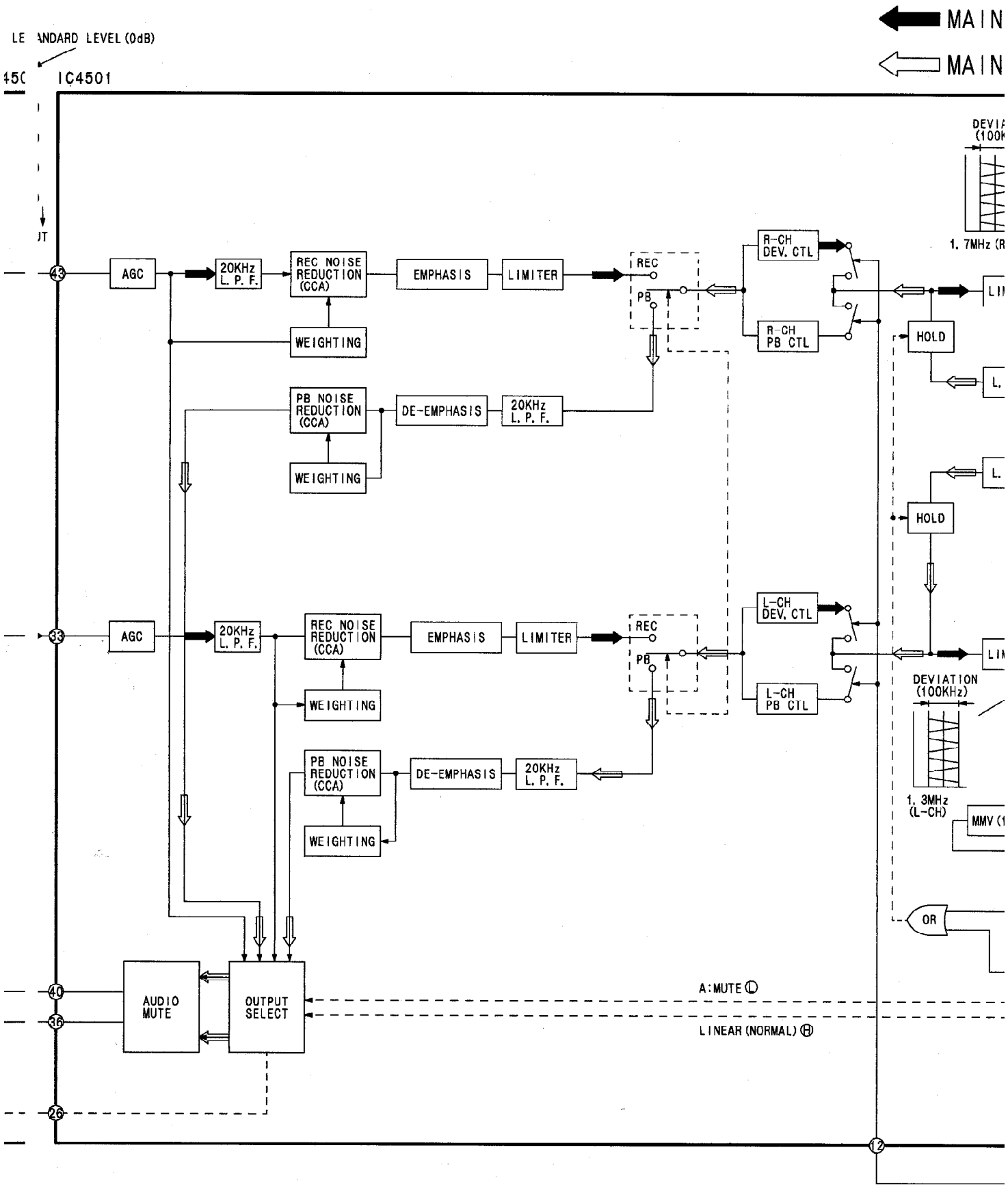

VH
TRANSISTOR SATURATION DETECTOR
IC2102
(CYLINDER DRIVE TR.)
DD CYLINDER MOTOR
VM LIMITER
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
DRIVE TRANSISTOR CONTROL
U1
U2
U3
L1
L2
L3
CS
FP2101 5, 6
FP2101 3, 4
FP2101 7, 8
<MAIN COIL 1>
<MAIN COIL 2>
<MAIN COIL 3>
FG AMP COMPARATOR
FG IN
VREF
R2105 0.33Ω
R2106 0.47Ω
FP2101-4 REC/PLAY
FP2101-7 REC/PLAY
FP2101-8 REC/PLAY
FP2101-11 REC/PLAY
FP2101-12 REC/PLAY
2.8Vp-p (V-RATE)
FP2101 16
FP2101 10
FG
PG


FP2102-2 REC/PLAY
FP2102-7 REC/PLAY
FP2102-11 REC/PLAY
2.2Vp-p (V-RATE)
DD CAPSRAN MOTOR
IC2103
(CAPSTAN MOTOR DRIVE)
FP2102 11
FP2102 7
FP2102 2
M1
M2
M3
ECR
TORQUE CONTROL
HALL IC1
HALL IC2
HALL IC3
FG HEAD
POSITION SIGNAL PROCESS
TORQUE DIRECTION
IC2103-10 REC/PLAY
0.14Vp-p (V-RATE)
R2115
FP2102 10
FP2102 8
FP2102 6
FP2102 4
FP2102 3
FP2102 1
FP2102 14

3-6. Hi-Fi AUDIO BLOCK DIAGRAM

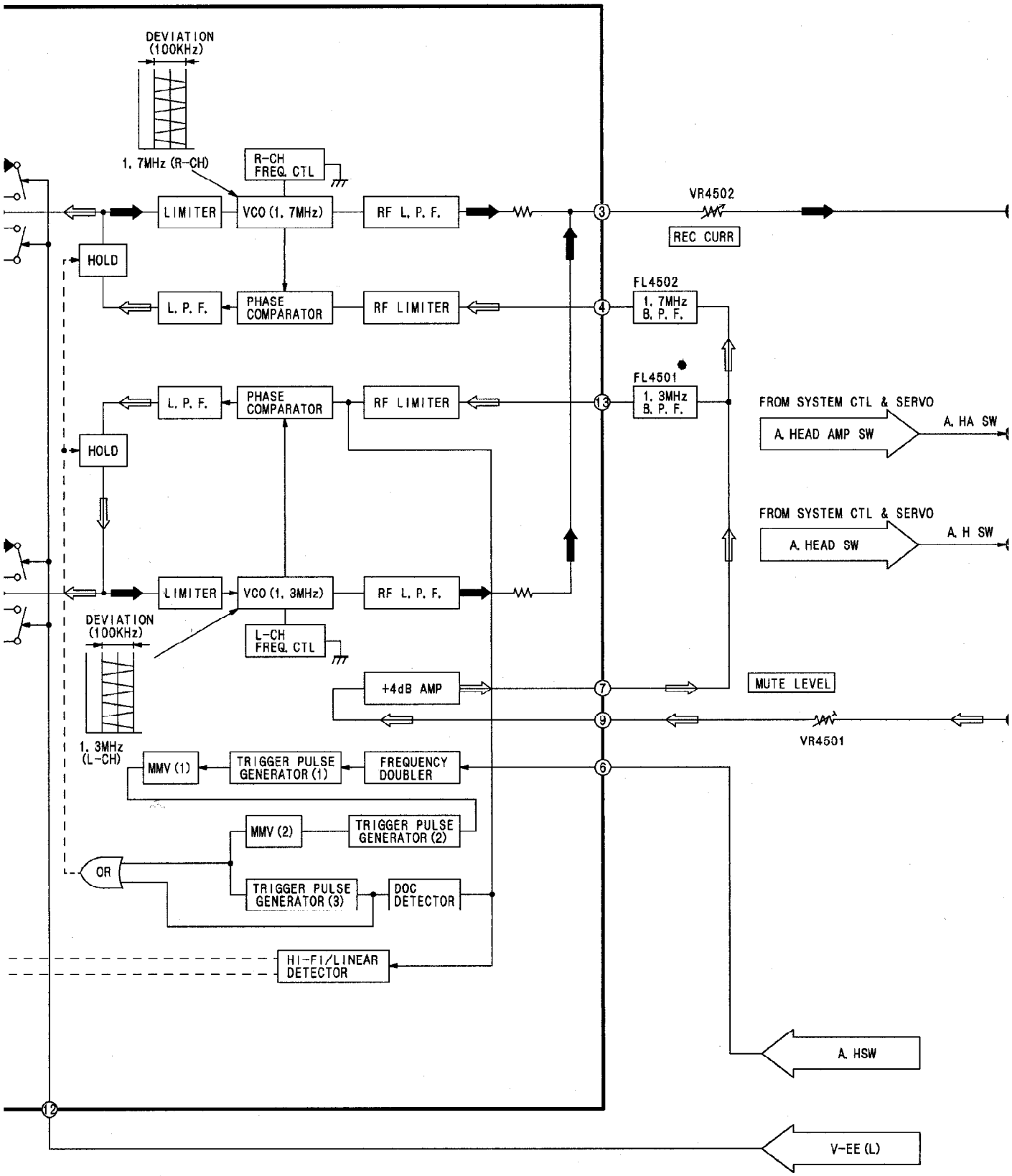


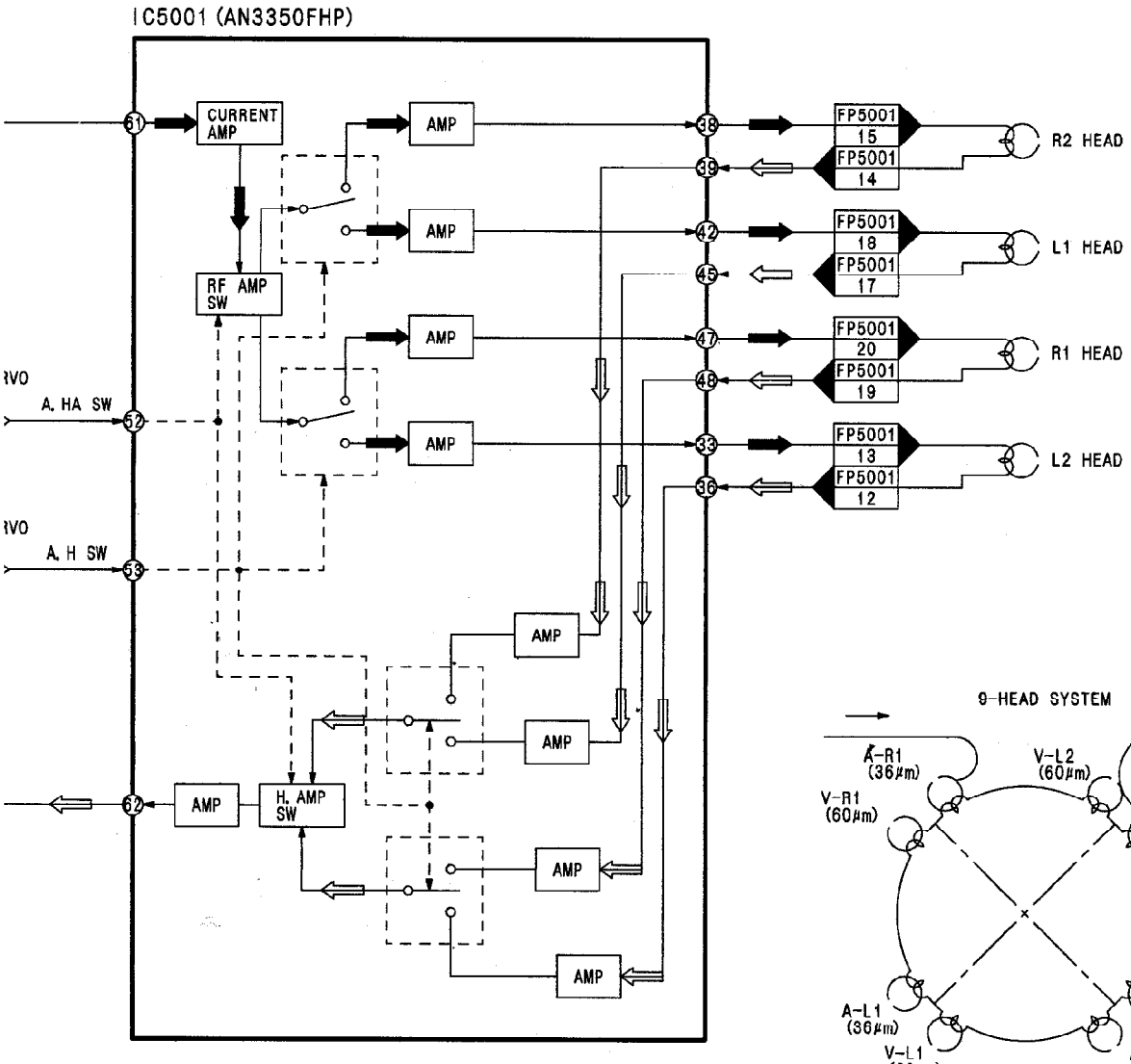
Back Page:
SYSTEM CTL & SERVO Section

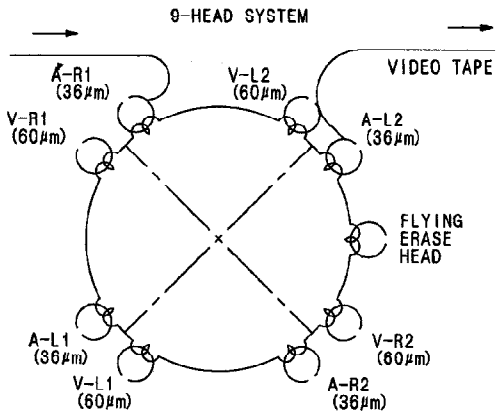

MAIN
MAIN
LE NDARD LEVEL (0dB)
450 IC4501
JT
43
AGC
20KHz L. P. F.
REC NOISE REDUCTION (CCA)
EMPHASIS
LIMITER
REC
PB
R-CH DEV. CTL
R-CH PB CTL
WEIGHTING
PB NOISE REDUCTION (CCA)
DE-EMPHASIS
20KHz L. P. F.
WEIGHTING
HOLD
33
AGC
20KHz L. P. F.
REC NOISE REDUCTION (CCA)
EMPHASIS
LIMITER
REC
PB
L-CH DEV. CTL
L-CH PB CTL
WEIGHTING
PB NOISE REDUCTION (CCA)
DE-EMPHASIS
20KHz L. P. F.
WEIGHTING
HOLD
DEVIATION (100KHz)
1. 3MHz (L-CH)
OR
40
36
AUDIO MUTE
OUTPUT SELECT
A:MUTE Ⓛ
LINEAR (NORMAL) Ⓗ
26
12

MAIN SIGNAL PATH REC MODE

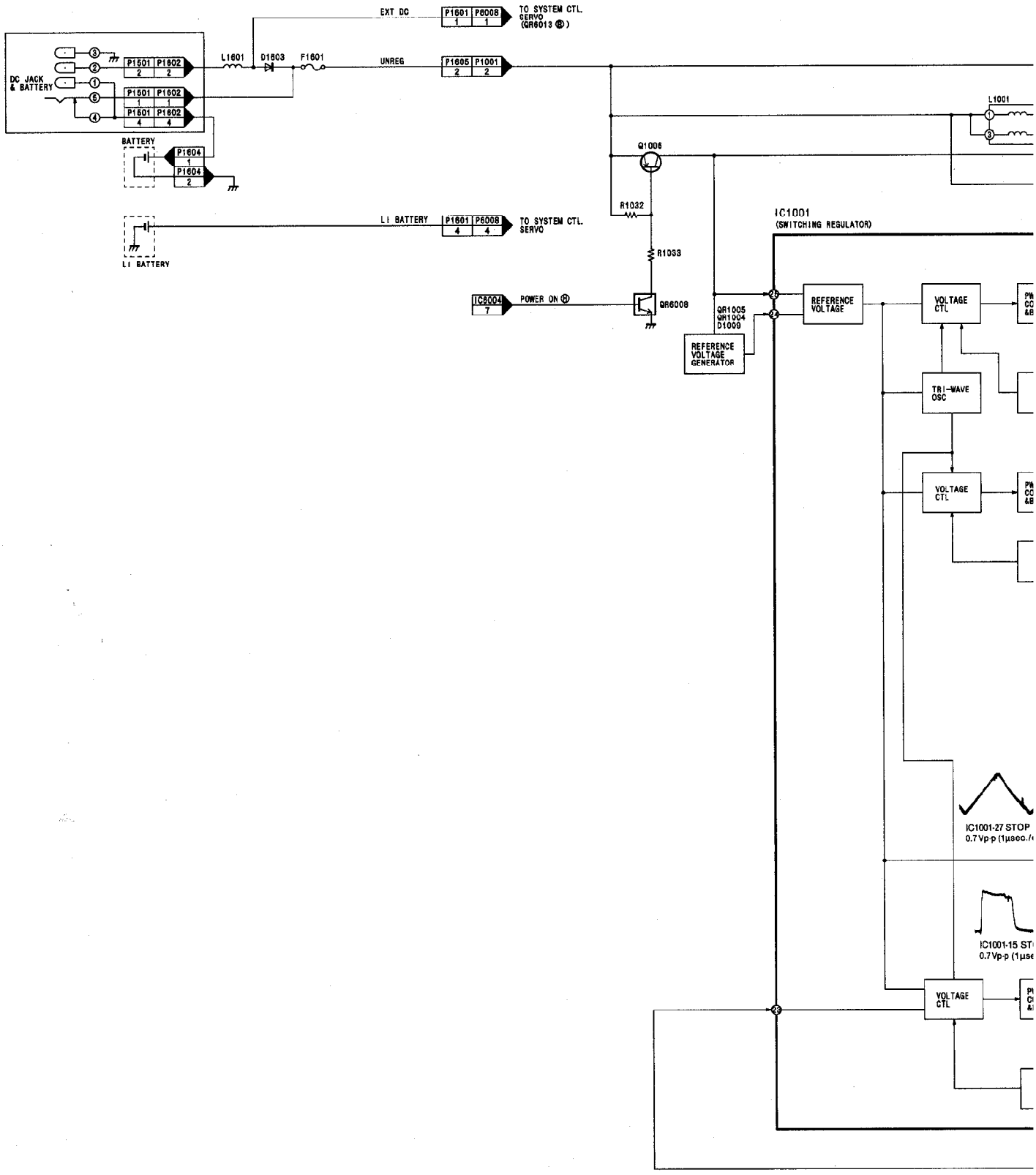
MAIN SIGNAL PATH PLAYBACK MODE

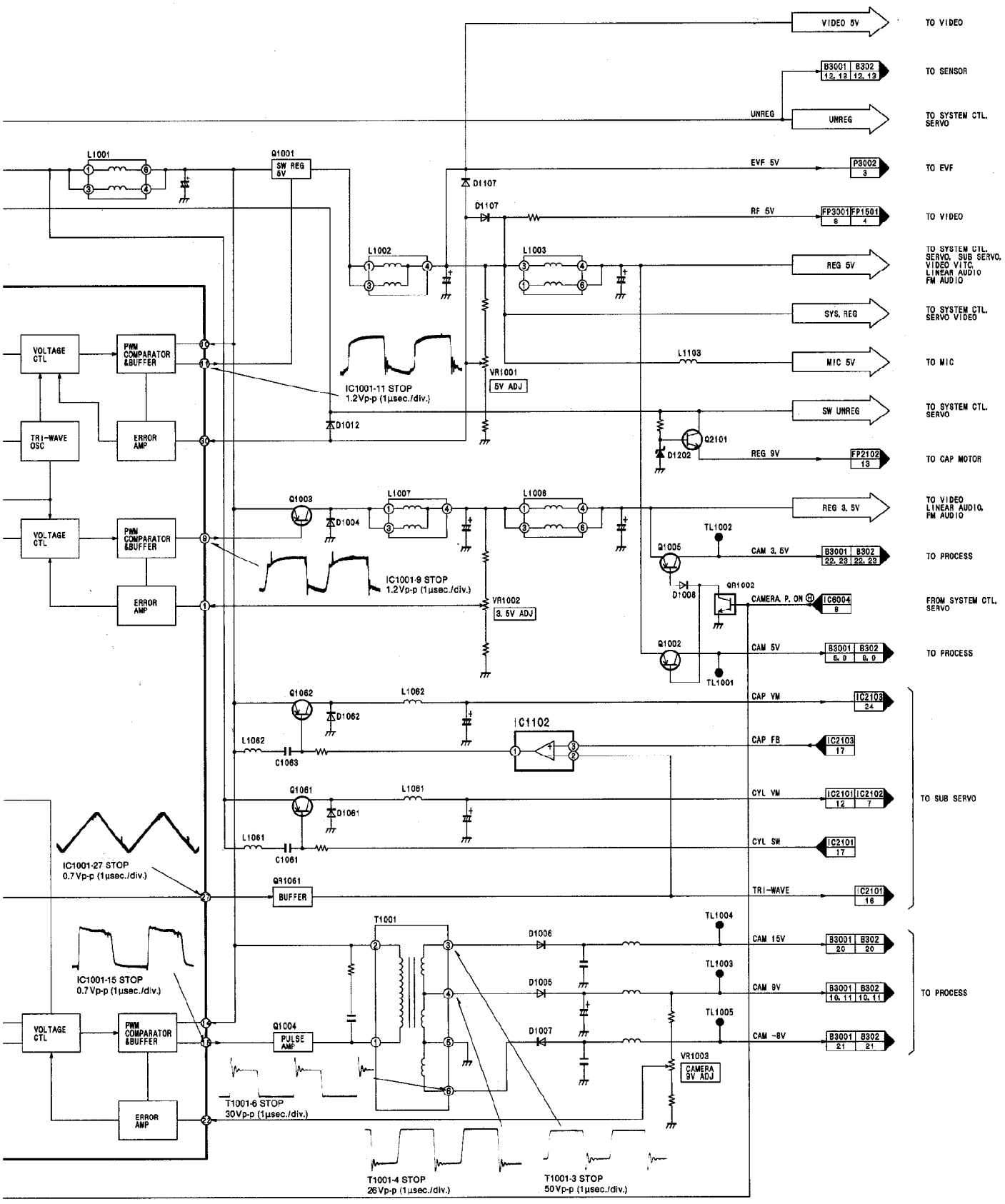



IC5001 (AN3350FHP)
CURRENT AMP
AMP
RF AMP SW
A. HA SW
A. H SW
H. AMP SW
FP5001 15
FP5001 14
FP5001 18
FP5001 17
FP5001 20
FP5001 19
FP5001 13
FP5001 12
R2 HEAD
L1 HEAD
R1 HEAD
L2 HEAD

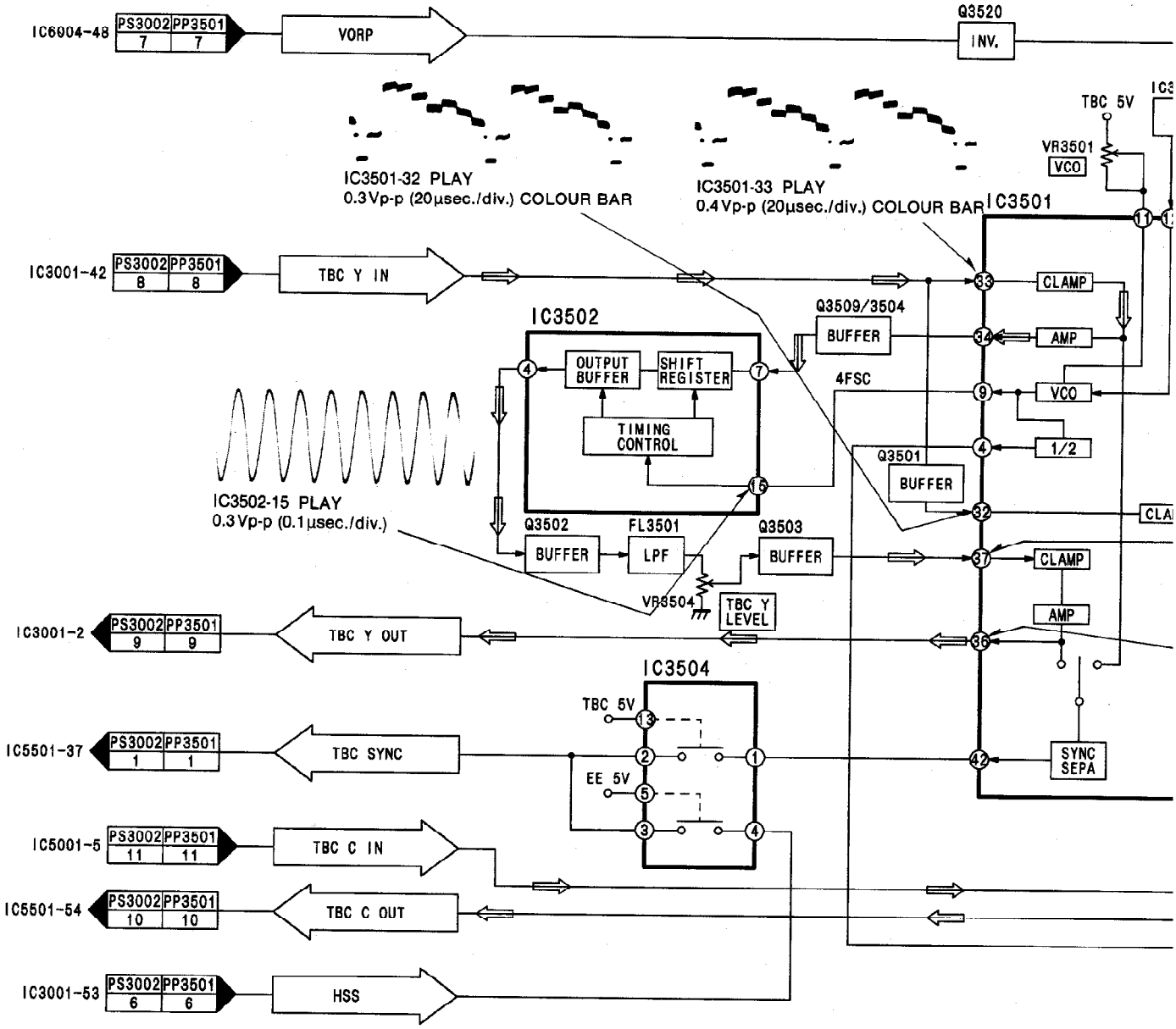

9-HEAD SYSTEM
VIDEO TAPE
A-R1 (36μm)
V-L2 (60μm)
V-R1 (60μm)
A-L2 (36μm)
FLYING ERASE HEAD
A-L1 (36μm)
V-R2 (60μm)
V-L1 (60μm)
A-R2 (36μm)

3-7. POWER BLOCK DIAGRAM

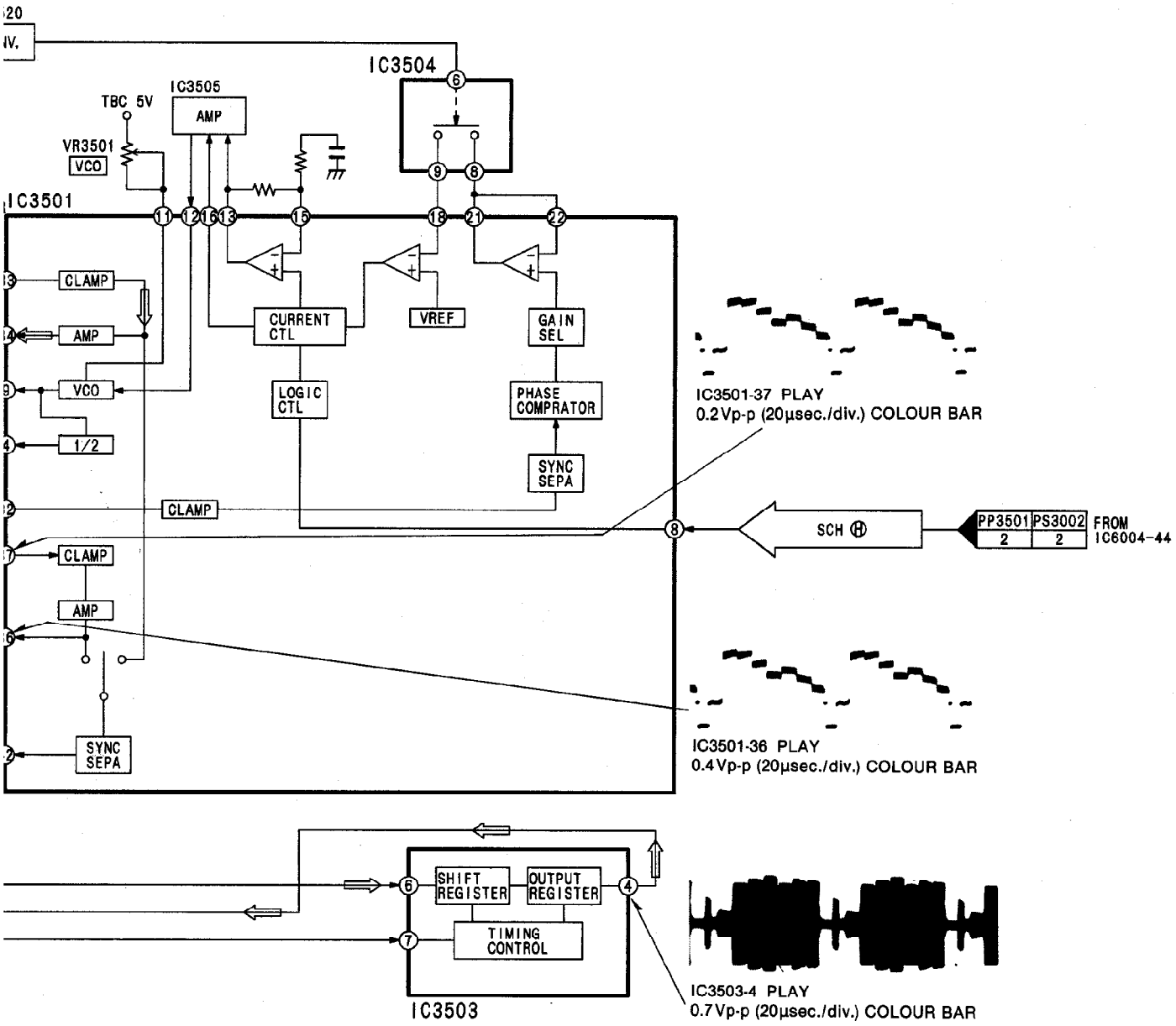



VIDEO 5V
TO VIDEO
B3001 B302
12, 13 12, 13
TO SENSOR
UNREG
UNREG
TO SYSTEM CTL. SERVO
L1001
Q1001
SW REG 5V
EVF 5V
P3002 3
TO EVF
D1107
D1107
RF 5V
FP3001 FP1501
6 4
TO VIDEO
L1002
L1003
REG 5V
TO SYSTEM CTL. SERVO, SUB SERVO, VIDEO VITC, LINEAR AUDIO FM AUDIO
SYS. REG
TO SYSTEM CTL. SERVO VIDEO
VOLTAGE CTL
PWM COMPARATOR &BUFFER
IC1001-11 STOP
1.2Vp-p (1µsec./div.)
VR1001
5V ADJ
L1103
MIC 5V
TO MIC
D1012
SW UNREG
TO SYSTEM CTL. SERVO
TRI-WAVE OSC
ERROR AMP
Q2101
D1202
REG 9V
FP2102 13
TO CAP MOTOR
Q1003
L1007
L1008
REG 3.5V
TO VIDEO LINEAR AUDIO, FM AUDIO
D1004
TL1002
Q1005
CAM 3.5V
B3001 B302
22, 23 22, 23
TO PROCESS
IC1001-9 STOP
1.2Vp-p (1µsec./div.)
VR1002
3.5V ADJ
D1008
QR1002
CAMERA P. ON
IC6004 8
FROM SYSTEM CTL. SERVO
Q1002
CAM 5V
B3001 B302
8, 9 8, 9
TO PROCESS
TL1001
Q1062
L1062
CAP VM
IC2103 24
D1062
C1102
L1062
C1063
CAP FB
IC2103 17
Q1061
L1061
CYL VM
IC2101 12
IC2102 7
D1061
L1061
C1061
CYL SW
IC2101 17
TO SUB SERVO
IC1001-27 STOP
0.7Vp-p (1µsec./div.)
QR1061
BUFFER
TRI-WAVE
IC2101 16
T1001
TL1004
D1006
CAM 15V
B3001 B302
20 20
IC1001-15 STOP
0.7Vp-p (1µsec./div.)
TL1003
D1005
CAM 9V
B3001 B302
10, 11 10, 11
TO PROCESS
VOLTAGE CTL
PWM COMPARATOR &BUFFER
Q1004
PULSE AMP
TL1005
D1007
CAM -8V
B3001 B302
21 21
VR1003
CAMERA 9V ADJ
ERROR AMP
T1001-6 STOP
30Vp-p (1µsec./div.)
T1001-4 STOP
26Vp-p (1µsec./div.)
T1001-3 STOP
50Vp-p (1µsec./div.)

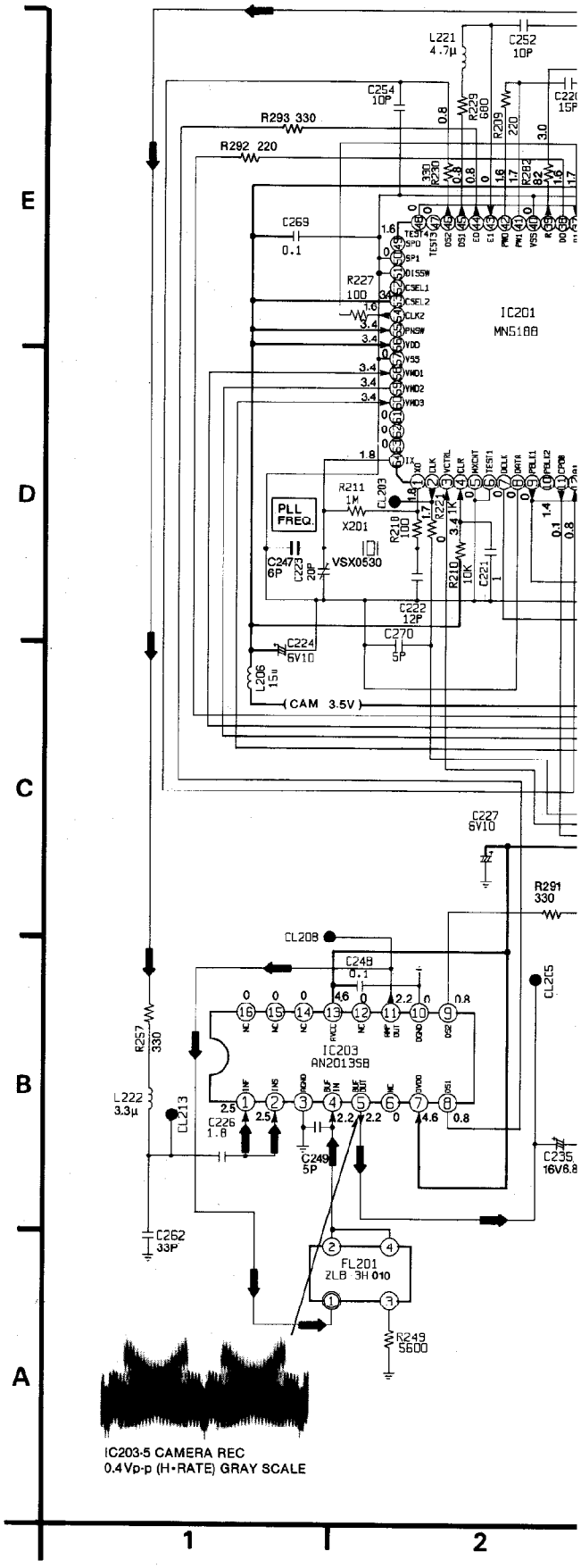
3-8. TBC BLOCK DIAGRAM



⇦ MAIN SIGNAL PATH IN PLAYBACK MODE

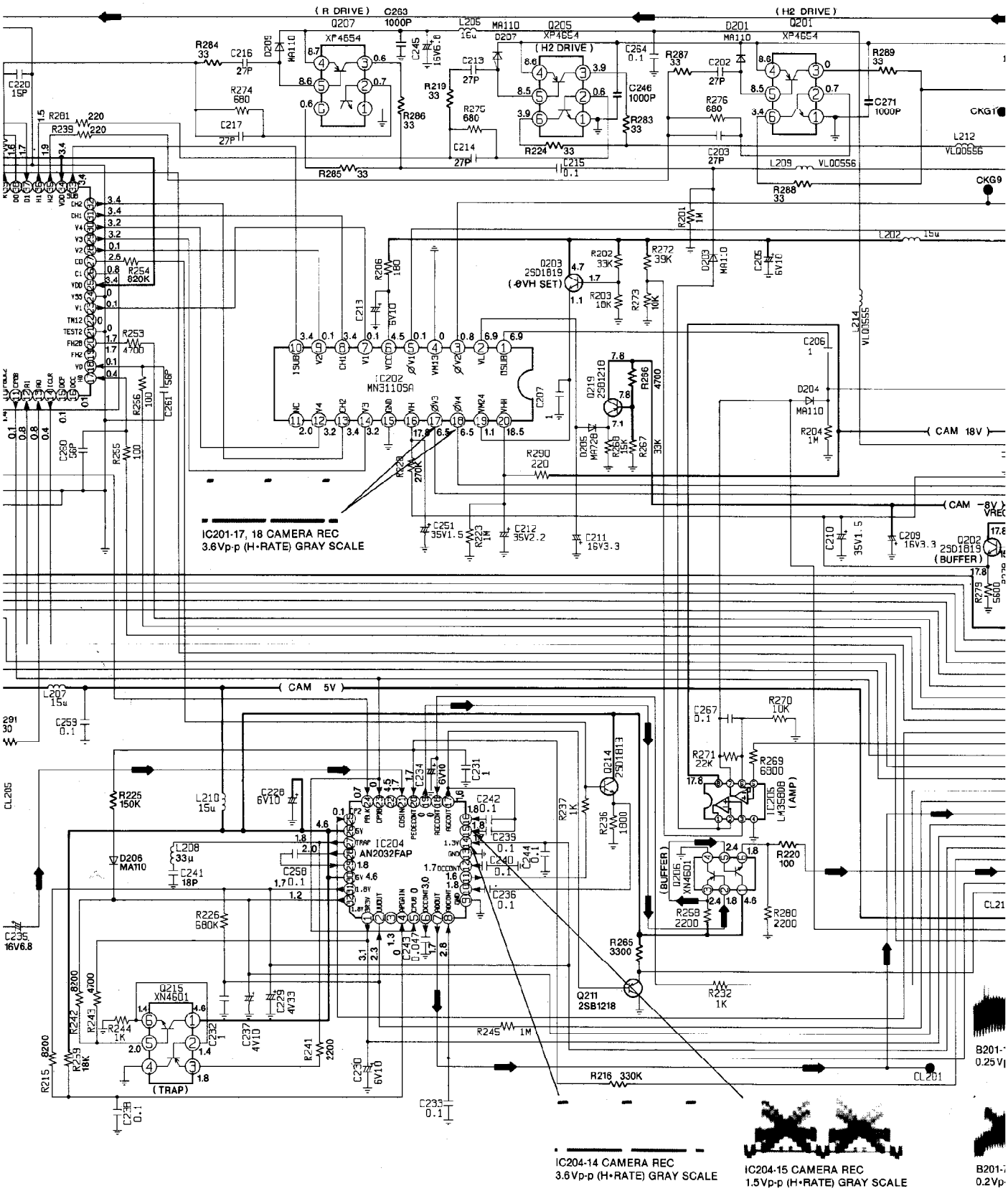


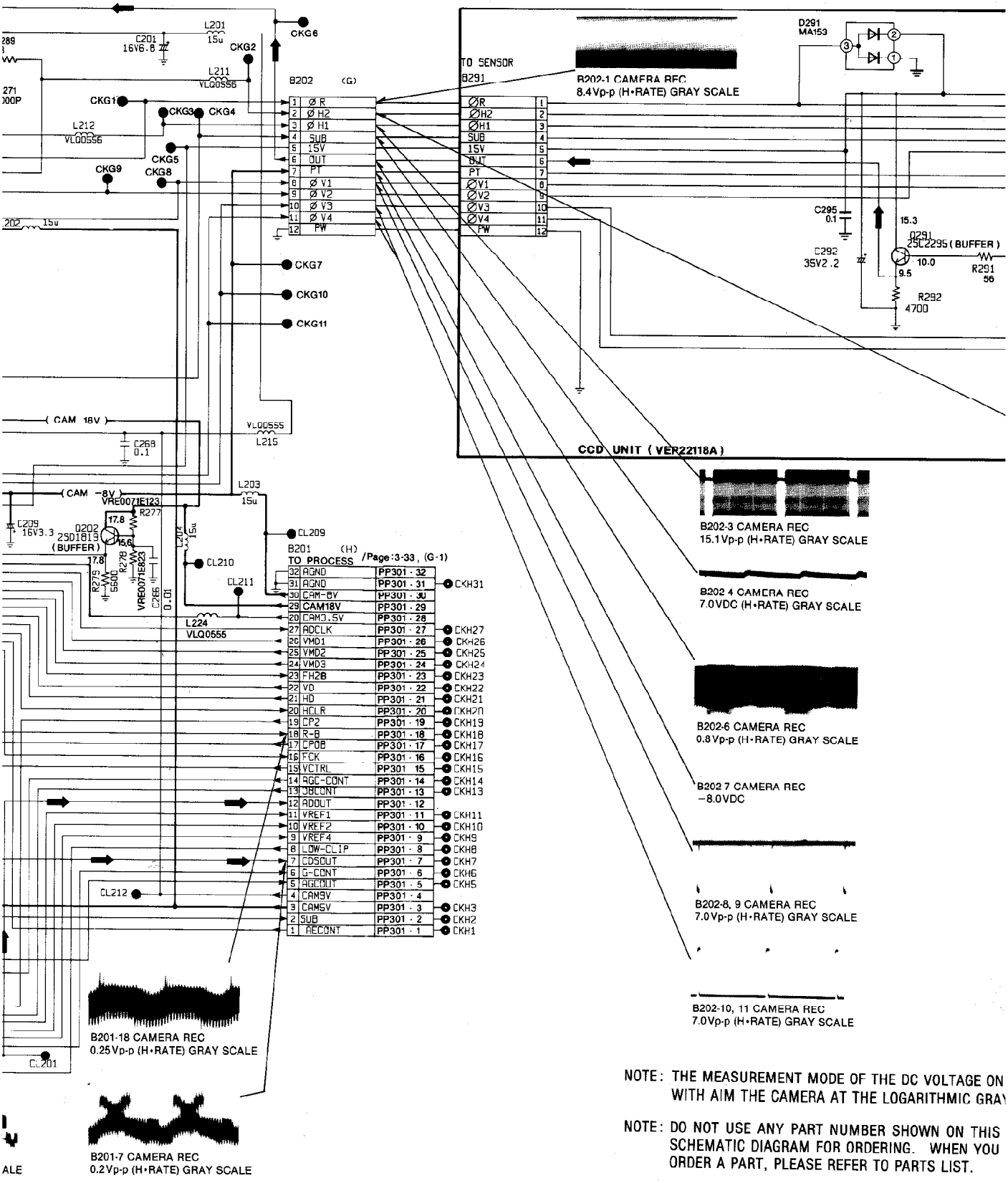
3-9. CCD DRIVE SCHEMATIC DIA



Back Page:
POWER & TBC Section

IAGRAM

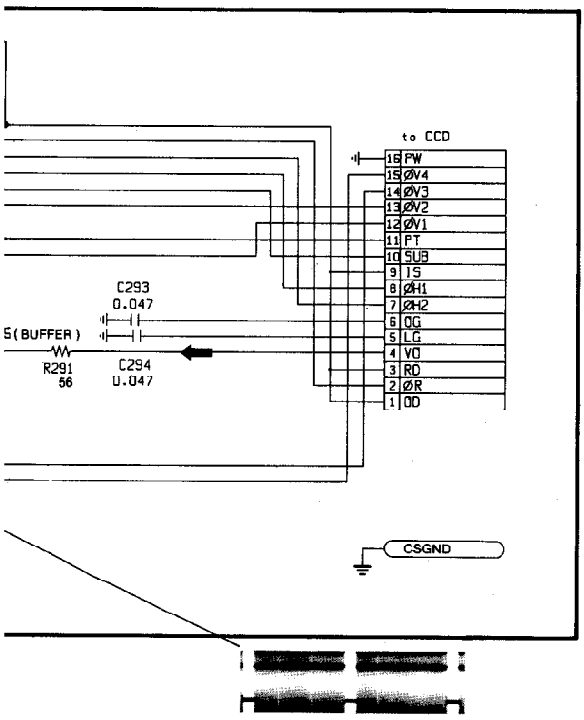

(R DRIVE)
(H2 DRIVE)
(H2 DRIVE)
(CAM 18V)
(CAM -8V)
(CAM 5V)
(BUFFER)
(AMP)
(TRAP)
IC201-17, 18 CAMERA REC
3.6Vp-p (H•RATE) GRAY SCALE
IC204-14 CAMERA REC
3.6Vp-p (H•RATE) GRAY SCALE
IC204-15 CAMERA REC
1.5Vp-p (H•RATE) GRAY SCALE
IC202
MN3110SA
IC204
AN2032FAP
IC205
LM35600
Q203
2SD1819
Q211
2SB1218
Q214
2SD1815
Q215
XN4601
D206
MA110
D207
MA110
D208
MA110
D209
MA110
D201
MA110
D202
2SD1815
D203
MA110
D204
MA110
D205
MA728
D206
XN4601
Q201
XP4654
Q205
XP4654
Q207
XP4654
L205
15u
L207
15u
L208
33µ
L209
VL00556
L210
15u
L212
VL00556
L214
VL00555
L202
15u
C220
15P
C216
27P
C217
27P
C213
27P
C214
27P
C215
0.1
C254
0.1
C202
27P
C203
27P
C271
1000P
C246
1000P
C245
16V6.8
C206
1
C207
1
C209
16V3.3
C210
35V1.5
C211
16V3.3
C212
35V2.2
C231
1
C232
1
C233
0.1
C234
6V10
C235
16V6.8
C236
0.1
C237
4V10
C238
0.1
C239
0.1
C240
0.1
C241
18P
C242
0.1
C244
0.1
C250
68P
C251
35V1.5
C259
0.1
C260
68P
C261
56P
C267
0.1
R201
1M
R202
33K
R203
16K
R204
1M
R206
180
R214
270K
R215
8200
R216
330K
R219
33
R220
100
R223
1M
R225
150K
R226
680K
R232
1K
R236
1800
R237
1K
R241
2200
R242
8200
R243
4700
R244
1K
R245
1M
R253
4700
R254
820K
R255
100
R256
100
R258
2200
R259
18K
R265
3300
R266
4700
R267
33K
R269
6800
R270
10K
R271
22K
R272
39K
R273
10K
R274
680
R275
680
R276
680
R280
2200
R281
220
R283
33
R284
33
R285
33
R286
33
R287
33
R288
33
R289
33
R290
220
CKG1
CKG9
B201-
0.25V
B201-
0.2Vp



NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON
WITH AIM THE CAMERA AT THE LOGARITHMIC GRA

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

⬅ VIDEO SIGNAL



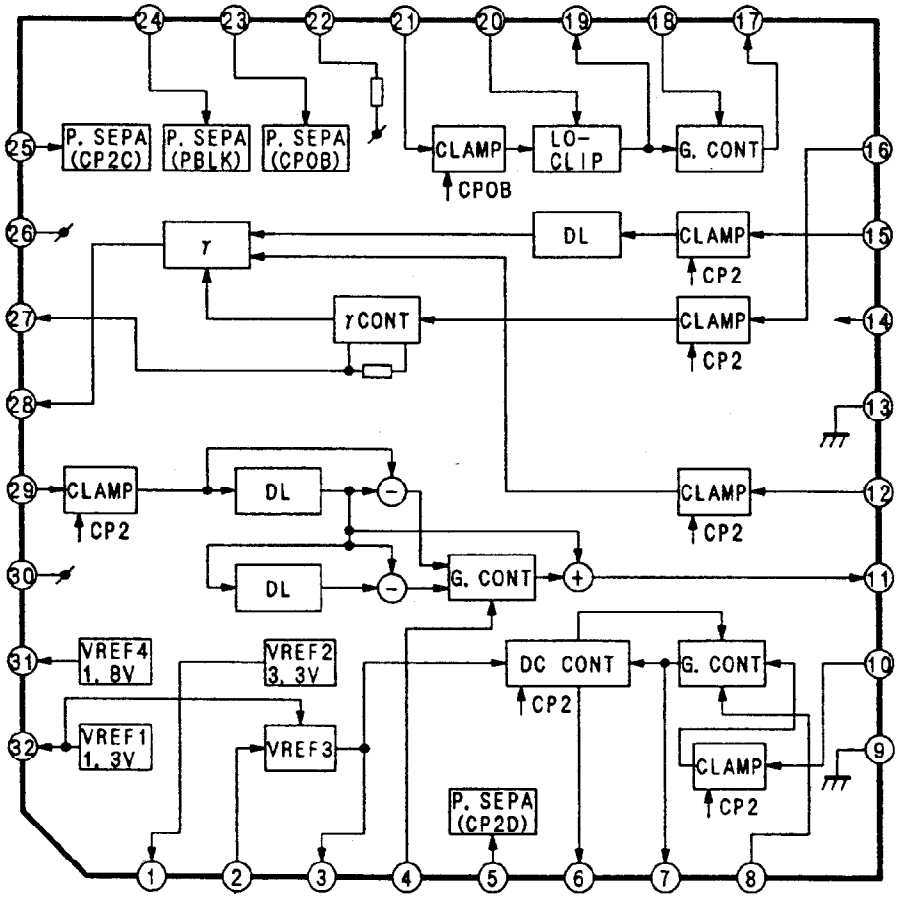
B202-2 CAMERA REC
15.1Vp-p (H•RATE) GRAY SCALE

LTAGE ON THIS DIAGRAM IS STOP MODE
IMIC GRAY SCALE CHART.

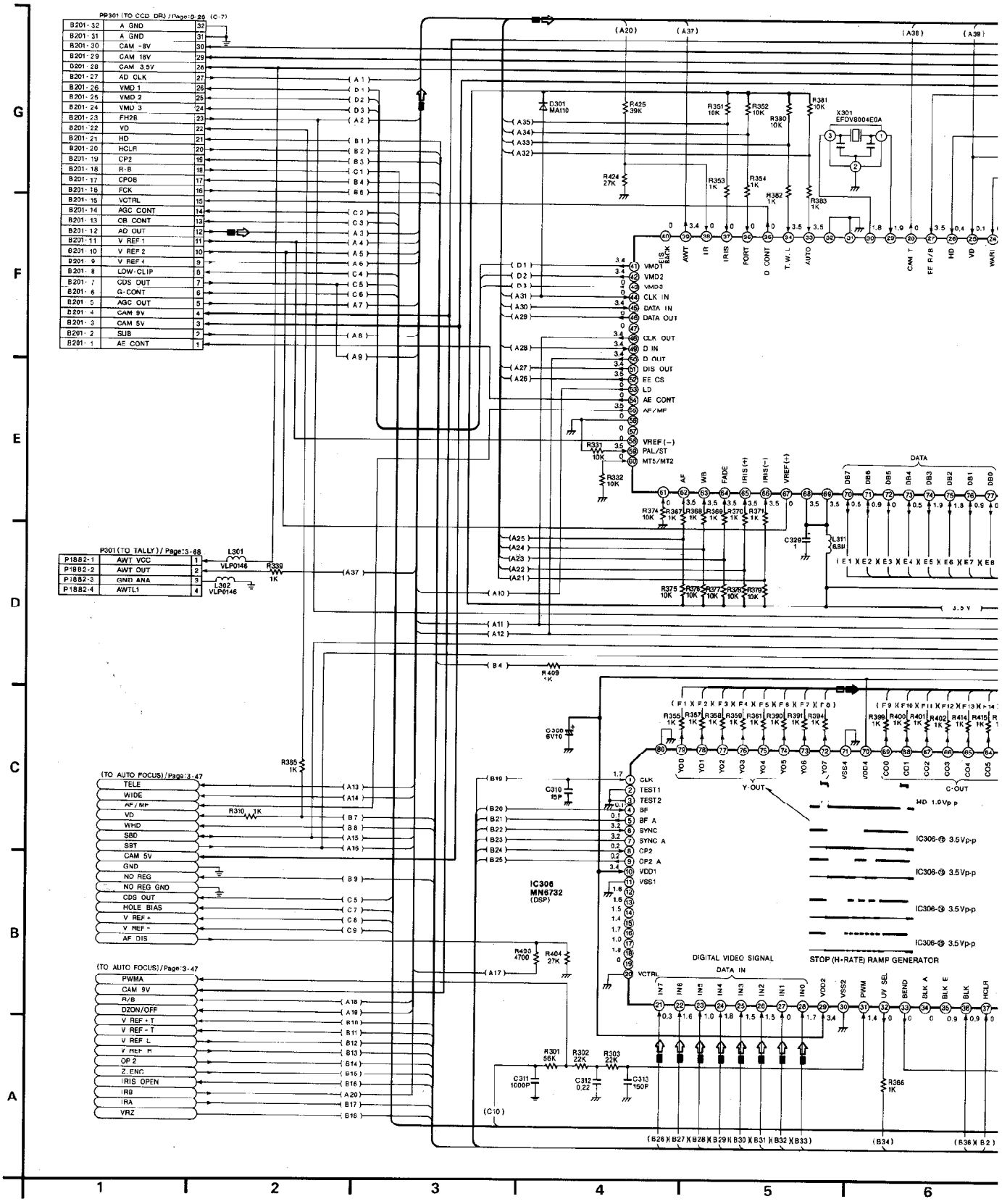
ON THIS
HEN YOU
LIST.

IC204

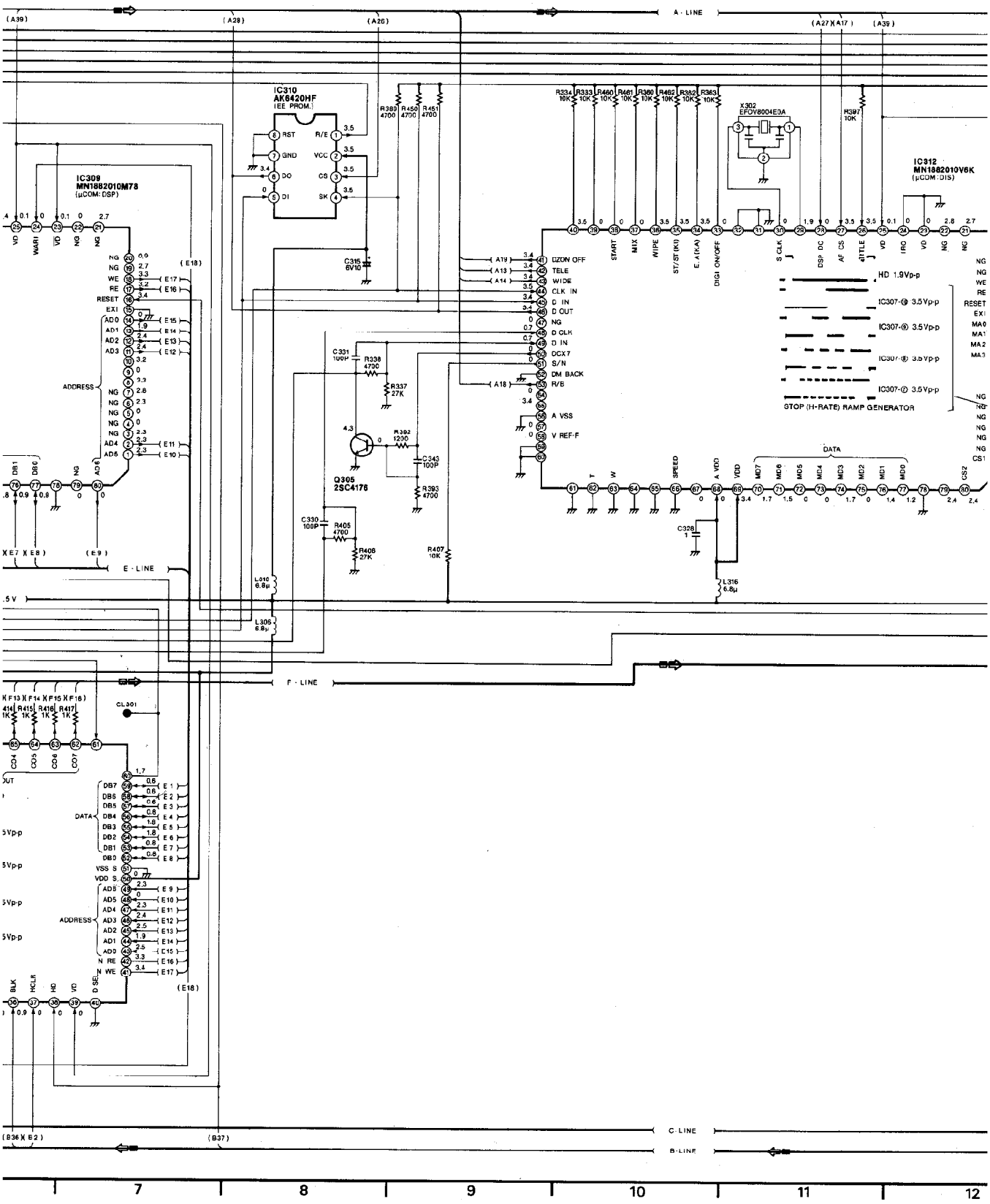
AN2033FAP
AN2032FAP

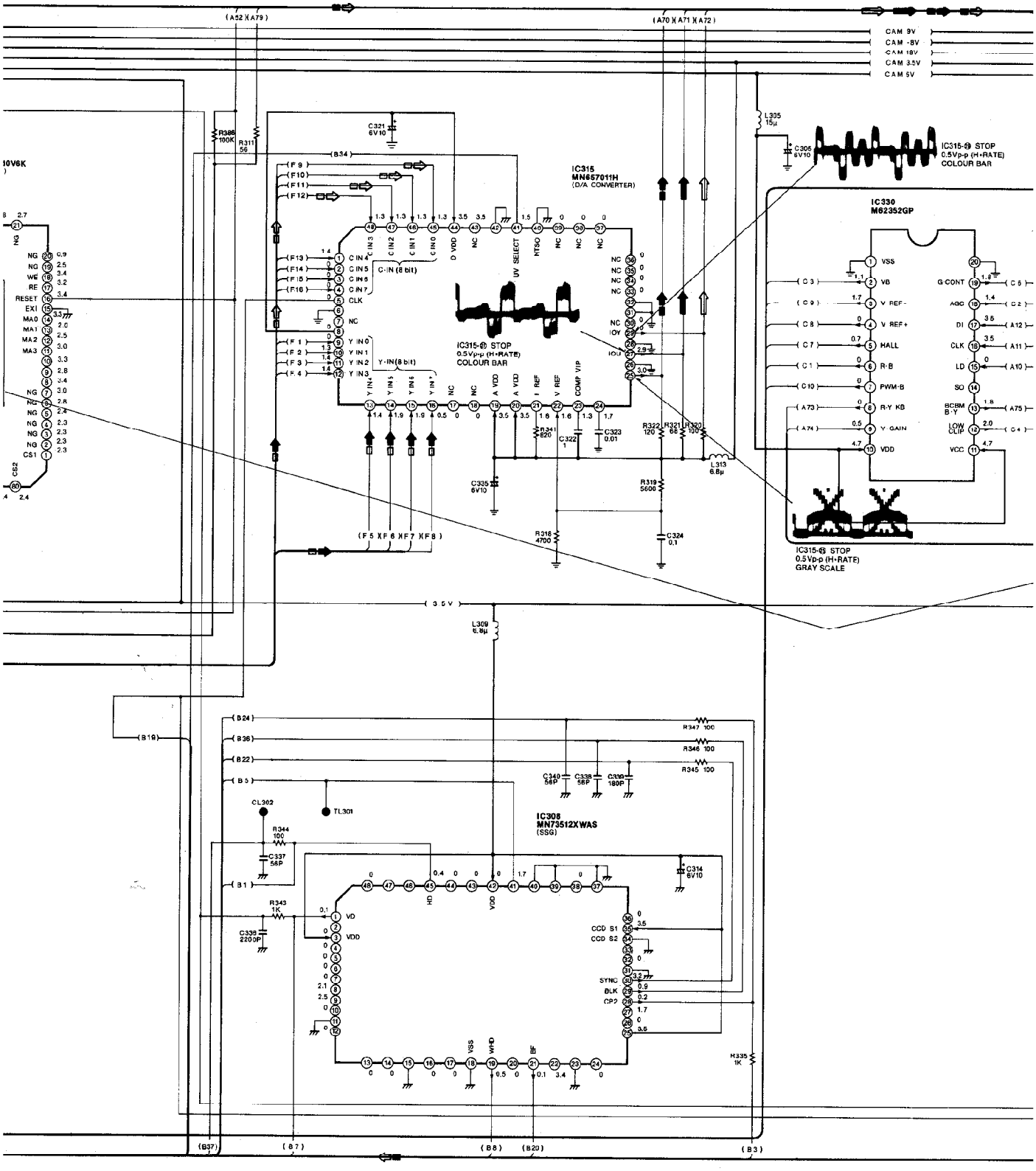


3-11. PROCESS & CAMERA OPERATION SCHEMATIC DIAGRAM



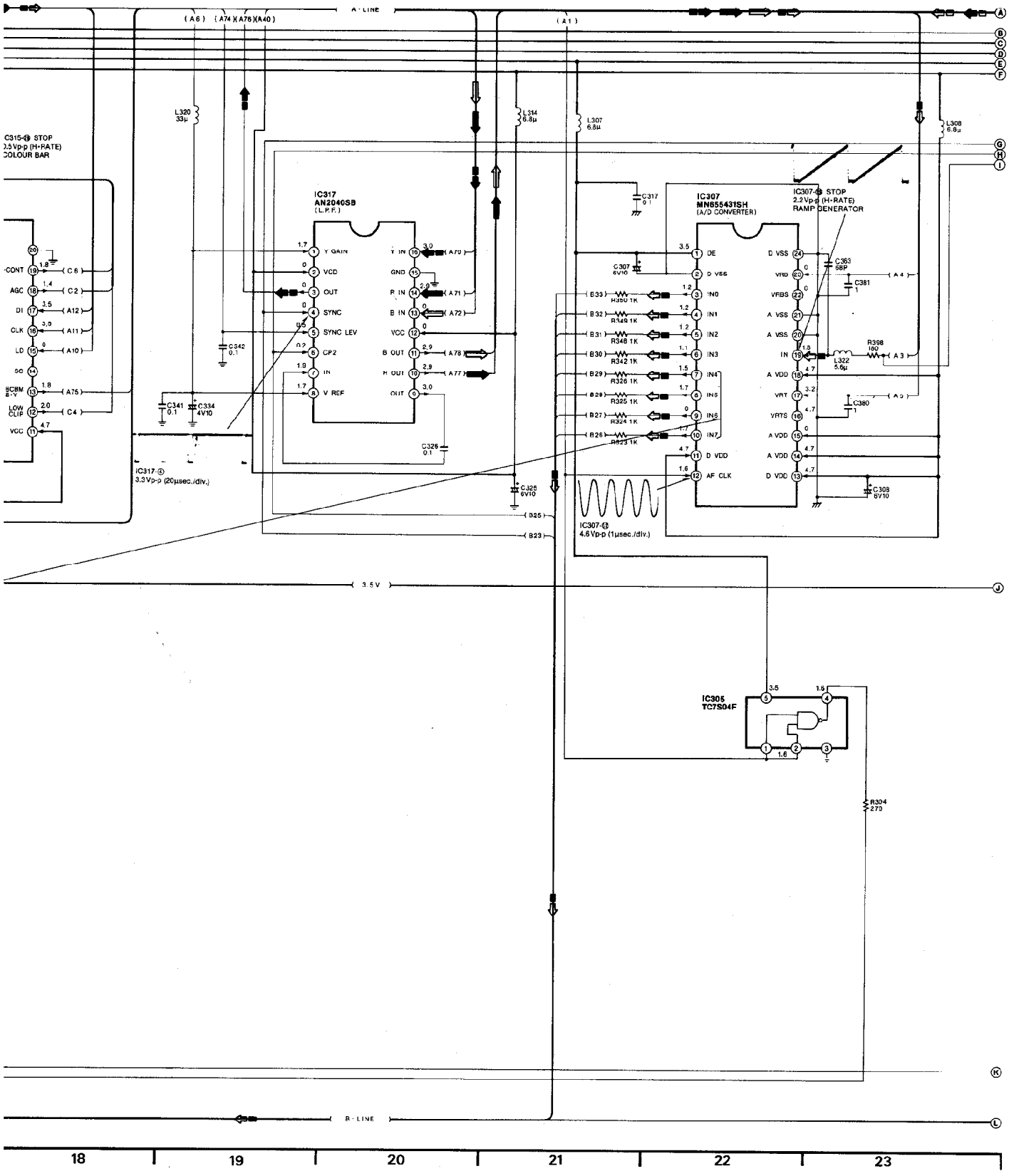
Back Page:
CCD DRIVE Section

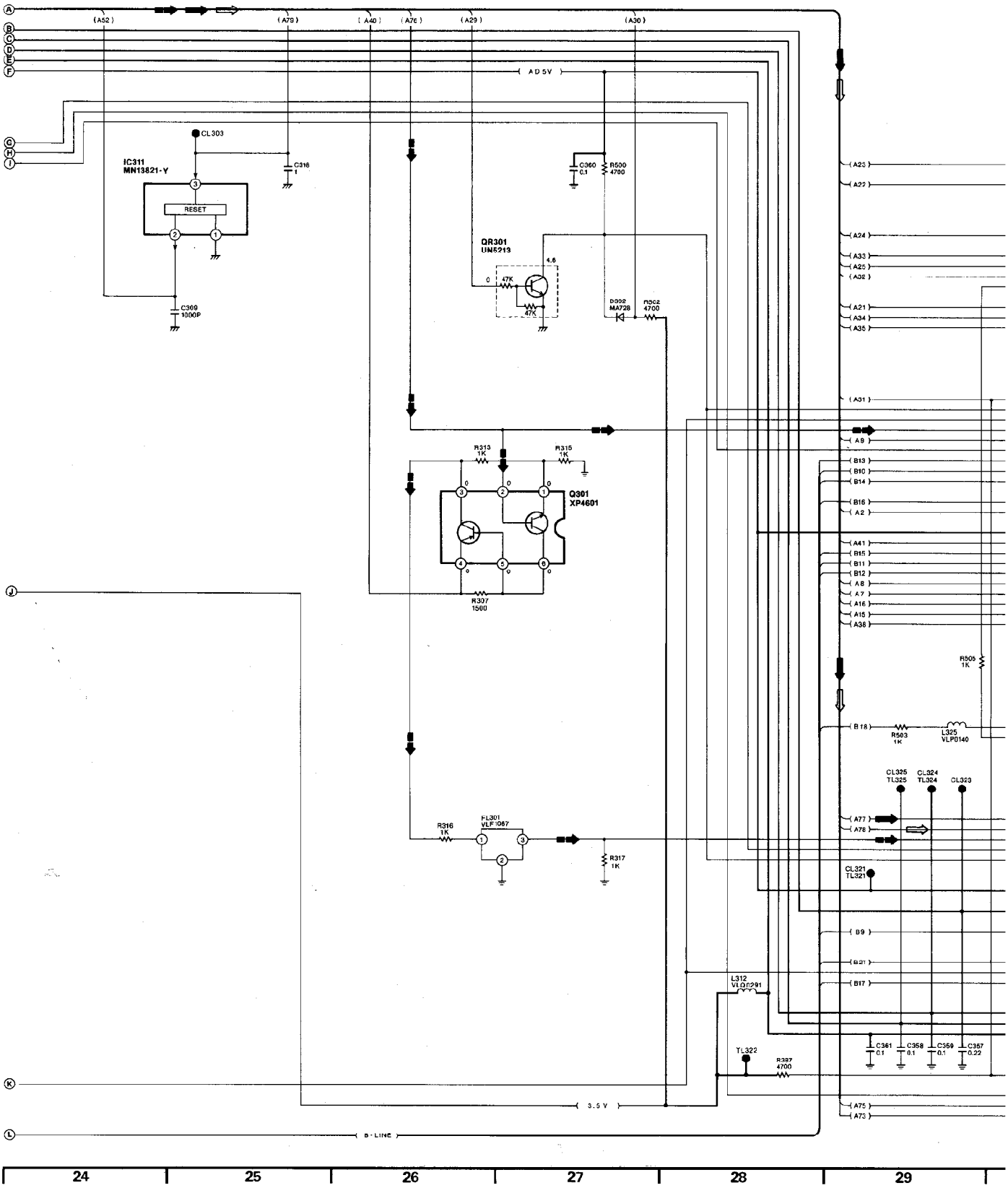

IC309
MN1882010M78
(μCOM:DSP)
IC310
AK6420HF
(EE PROM)
IC312
MN1882010V6K
(μCOM:DIS)
X302
EFOV8004E0A
Q305
2SC4176
A-LINE
E-LINE
F-LINE
C-LINE
B-LINE
HD 1.9Vp-p
IC307-⑭ 3.5Vp-p
IC307-⑯ 3.5Vp-p
IC307-⑮ 3.5Vp-p
IC307-⑰ 3.5Vp-p
STOP (H-RATE) RAMP GENERATOR
DATA
ADDRESS
7
8
9
10
11
12

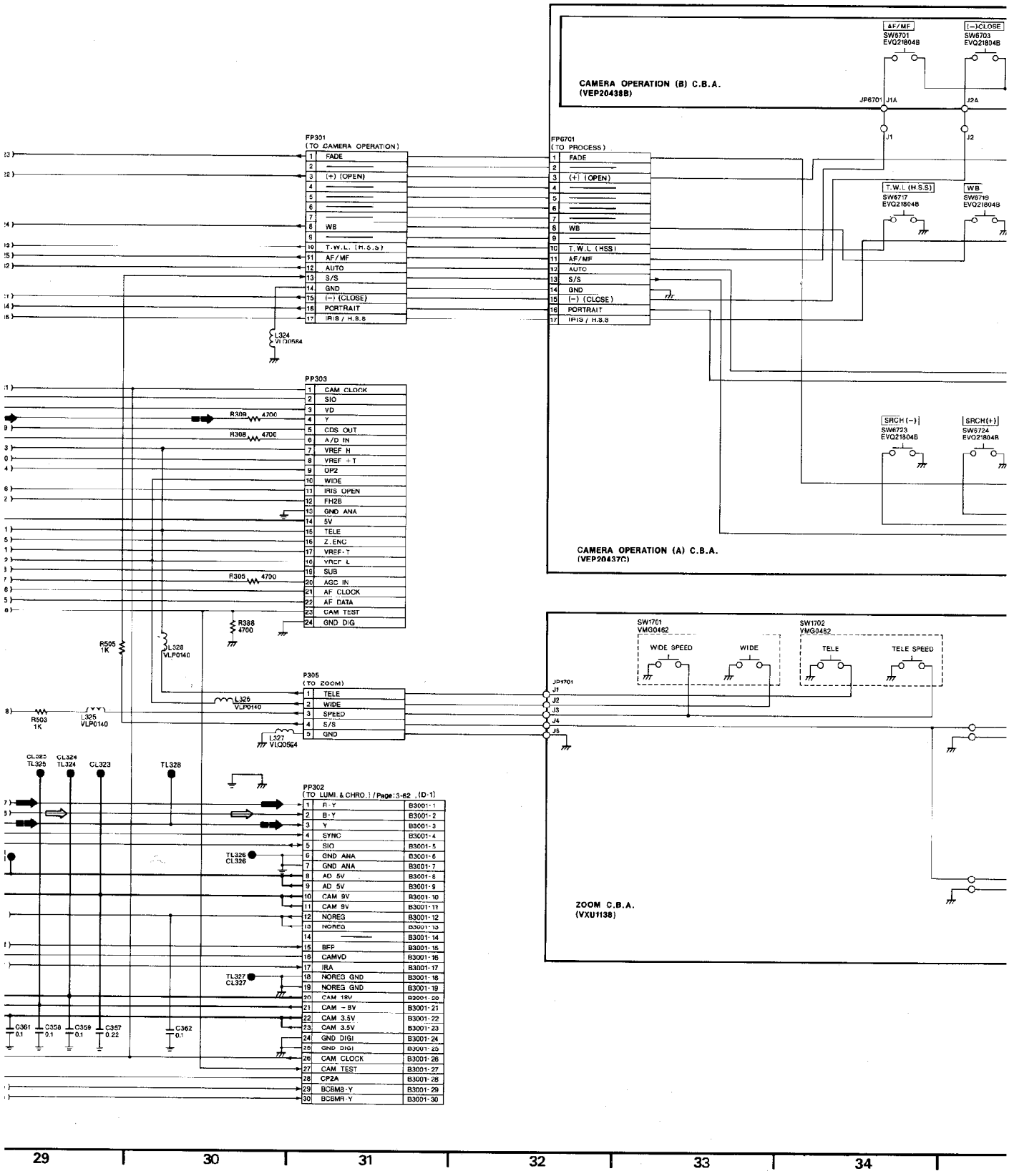


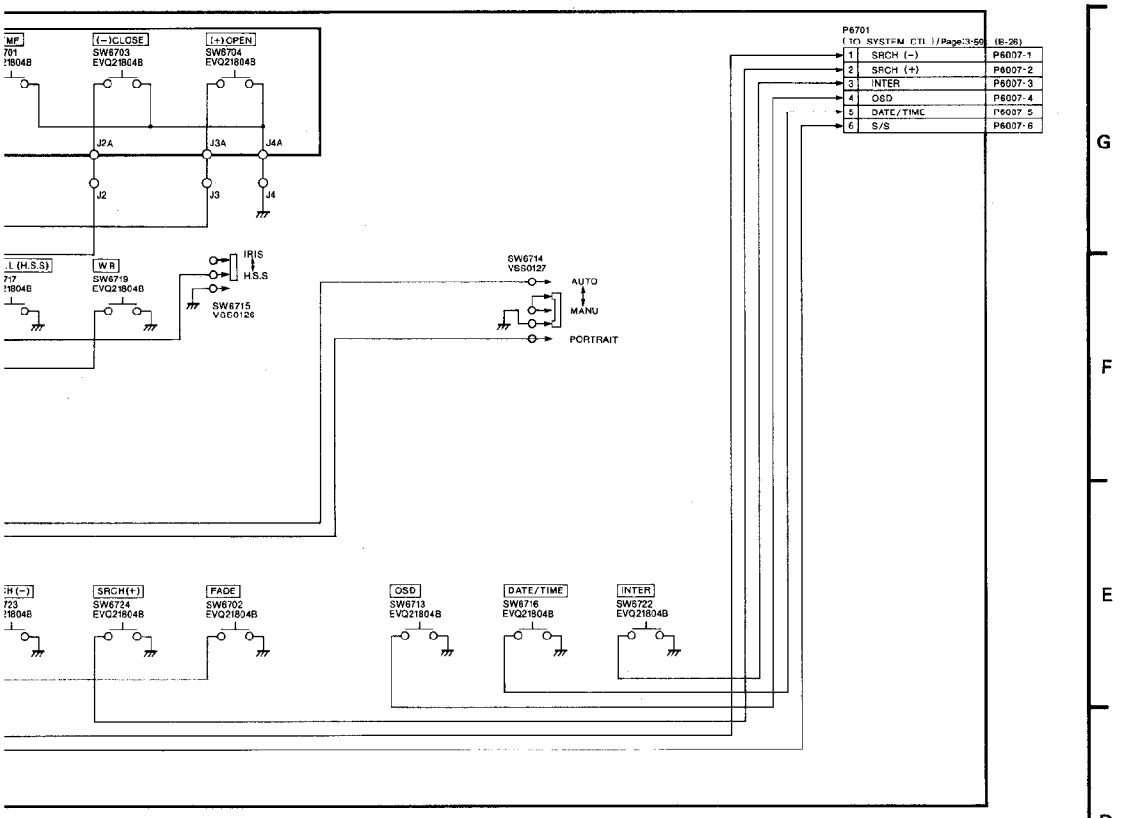
12 13 14 15 16 17 18

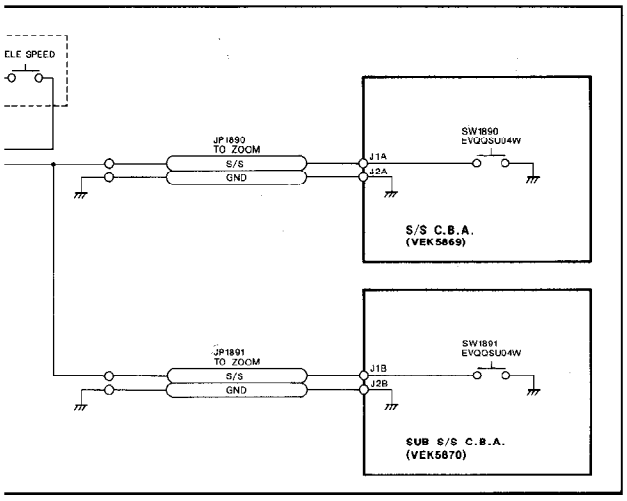
DIGITAL Y SIGNAL DIGITAL C SIGNAL Y SIGNAL R-Y SIGNAL B-Y SIGNAL




A
B
C
D
E
F
G
H
I
J
K
L
A52
A79
A40
A76
A29
A30
AD 5V
CL303
IC311
MN13821-Y
RESET
C316
1
C309
1000P
C360
0.1
R500
4700
QR301
UN5213
4.6
47K
47K
D302
MA728
R302
4700
R313
1K
R315
1K
Q301
XP4601
R307
1500
R316
1K
FL301
VLF1087
R317
1K
R505
1K
R503
1K
L325
VLP0140
CL325
TL325
CL324
TL324
CL323
CL321
TL321
L312
VLQ0291
TL322
R337
4700
C361
0.1
C358
0.1
C359
0.1
C357
0.22
3.5 V
S-LINE
A23
A22
A24
A33
A25
A32
A21
A34
A35
A31
A9
B13
B10
B14
B16
A2
A41
B15
B11
B12
A8
A7
A16
A15
A38
B18
A77
A78
B9
B21
B17
A75
A73
24
25
26
27
28
29


CAMERA OPERATION (B) C.B.A.
(VEP20438B)
AF/MF
SW6701
EVQ21804B
(–)CLOSE
SW6703
EVQ21804B
JP6701
J1A
J2A
J1
J2
T.W.L (H.S.S)
SW6717
EVQ21804B
WB
SW6719
EVQ21804B
SRCH(–)
SW6723
EVQ21804B
SRCH(+)
SW6724
EVQ21804R
CAMERA OPERATION (A) C.B.A.
(VEP20437C)
FP301
(TO CAMERA OPERATION)
FP6701
(TO PROCESS)
1 FADE
3 (+) (OPEN)
8 WB
10 T.W.L. (H.S.S)
11 AF/MF
12 AUTO
13 S/S
14 GND
15 (–) (CLOSE)
16 PORTRAIT
17 IRIS / H.S.S
L324
VLC0564
PP303
1 CAM CLOCK
2 SIO
3 VD
4 Y
5 CDS OUT
6 A/D IN
7 VREF H
8 VREF +T
9 OP2
10 WIDE
11 IRIS OPEN
12 FH2B
13 GND ANA
14 5V
15 TELE
16 Z.ENC
17 VREF-T
18 VREF L
19 SUB
20 AGC IN
21 AF CLOCK
22 AF DATA
23 CAM TEST
24 GND DIG
R309 4700
R308 4700
R305 4700
R388 4700
R505 1K
L328 VLP0140
R503 1K
L325 VLP0140
L326 VLP0140
L327 VLC0564
PP305
(TO ZOOM)
1 TELE
2 WIDE
3 SPEED
4 S/S
5 GND
SW1701
VMG0462
WIDE SPEED
WIDE
SW1702
VMG0482
TELE
TELE SPEED
JP1701
J1
J2
J3
J4
J5
ZOOM C.B.A.
(VXU1138)
CL325 TL325
CL324 TL324
CL323
TL328
PP302
(TO LUMI. & CHRO.) / Page:3-62 , (D-1)
1 R-Y B3001-1
2 B-Y B3001-2
3 Y B3001-3
4 SYNC B3001-4
5 SIO B3001-5
6 GND ANA B3001-6
7 GND ANA B3001-7
8 AD 5V B3001-8
9 AD 5V B3001-9
10 CAM 9V B3001-10
11 CAM 9V B3001-11
12 NOREG B3001-12
13 NOREG B3001-13
14 B3001-14
15 BFP B3001-15
16 CAMVD B3001-16
17 IRA B3001-17
18 NOREG GND B3001-18
19 NOREG GND B3001-19
20 CAM 18V B3001-20
21 CAM –8V B3001-21
22 CAM 3.5V B3001-22
23 CAM 3.5V B3001-23
24 GND DIGI B3001-24
25 GND DIGI B3001-25
26 CAM CLOCK B3001-26
27 CAM TEST B3001-27
28 CP2A B3001-28
29 BCBMB-Y B3001-29
30 BCBMR-Y B3001-30
TL326 CL326
TL327 CL327
C361 0.1
C358 0.1
C359 0.1
C357 0.22
C362 0.1

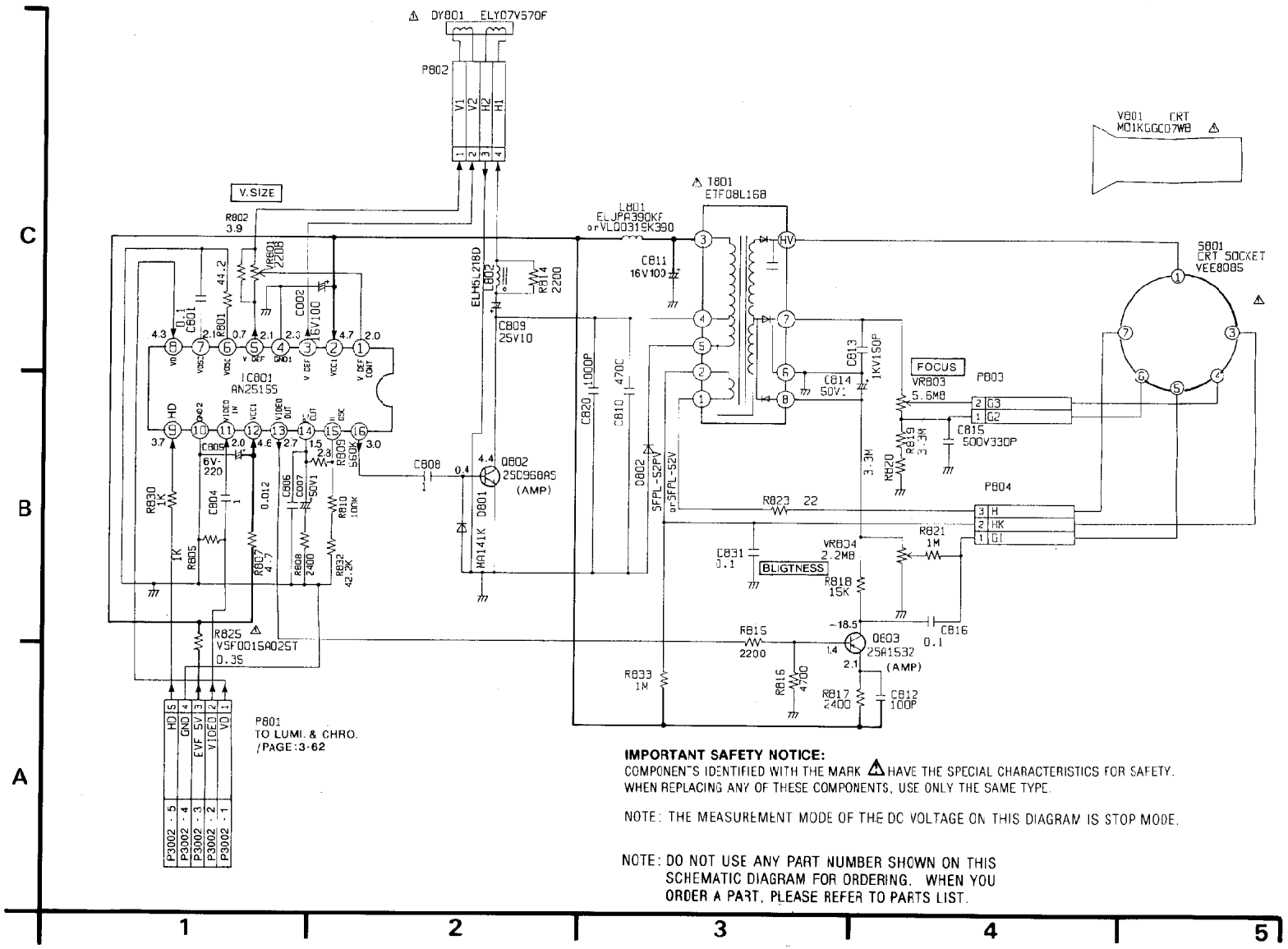




NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

3-12. EVF SCHEMATIC DIAGRAM

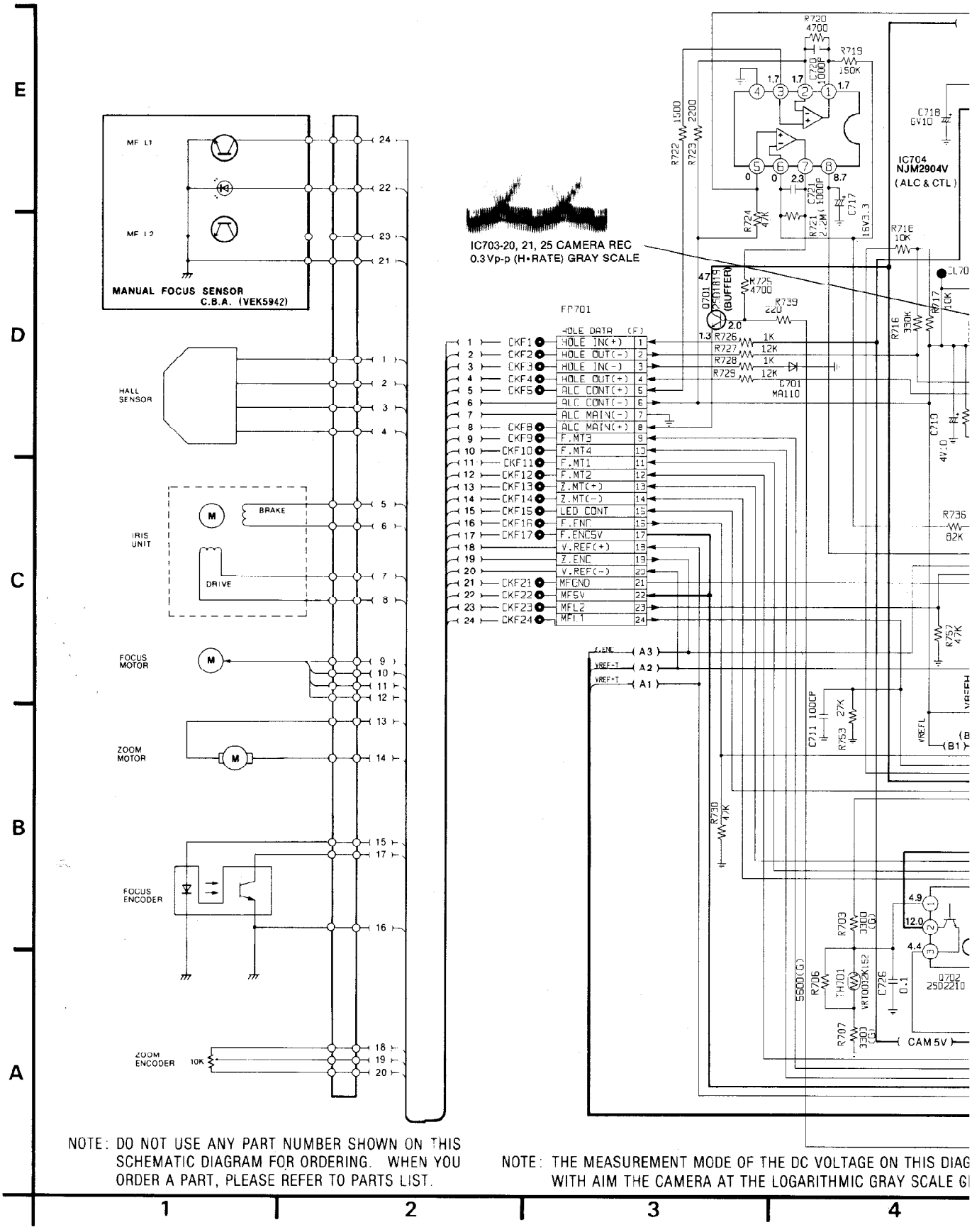


IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

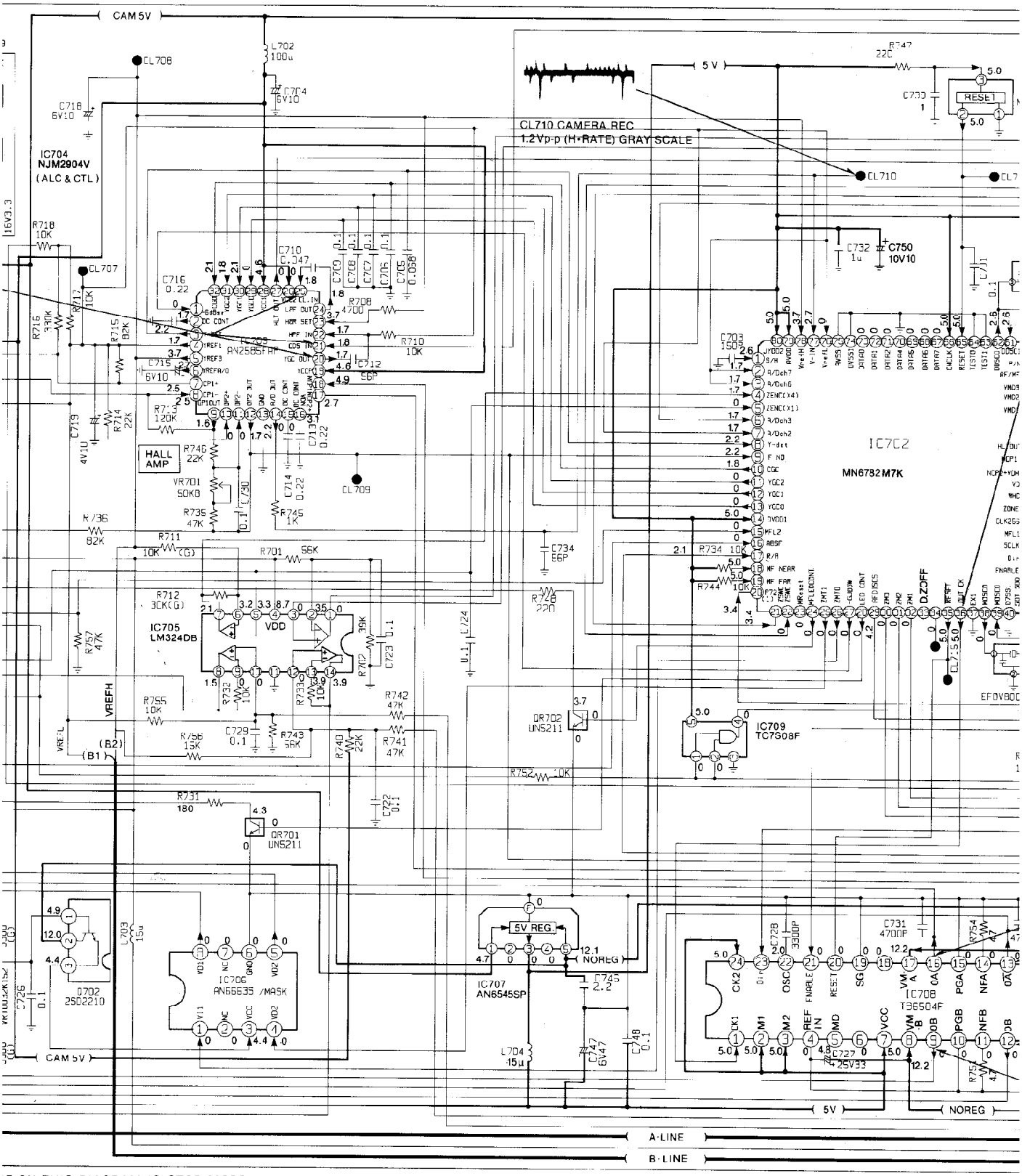
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-15. AUTO FOCUS SCHEMATIC DIAGRAM



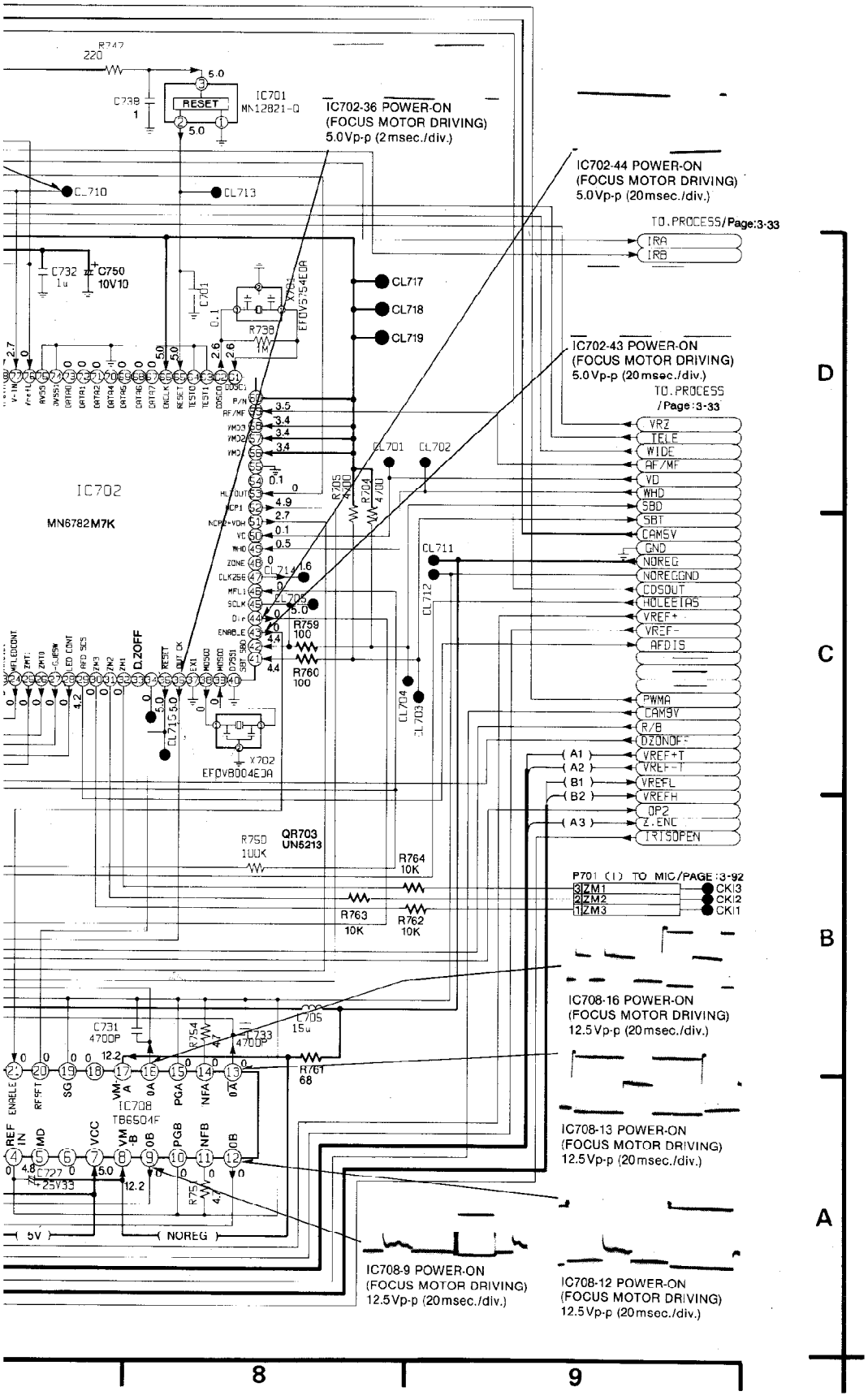
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAG WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE GI

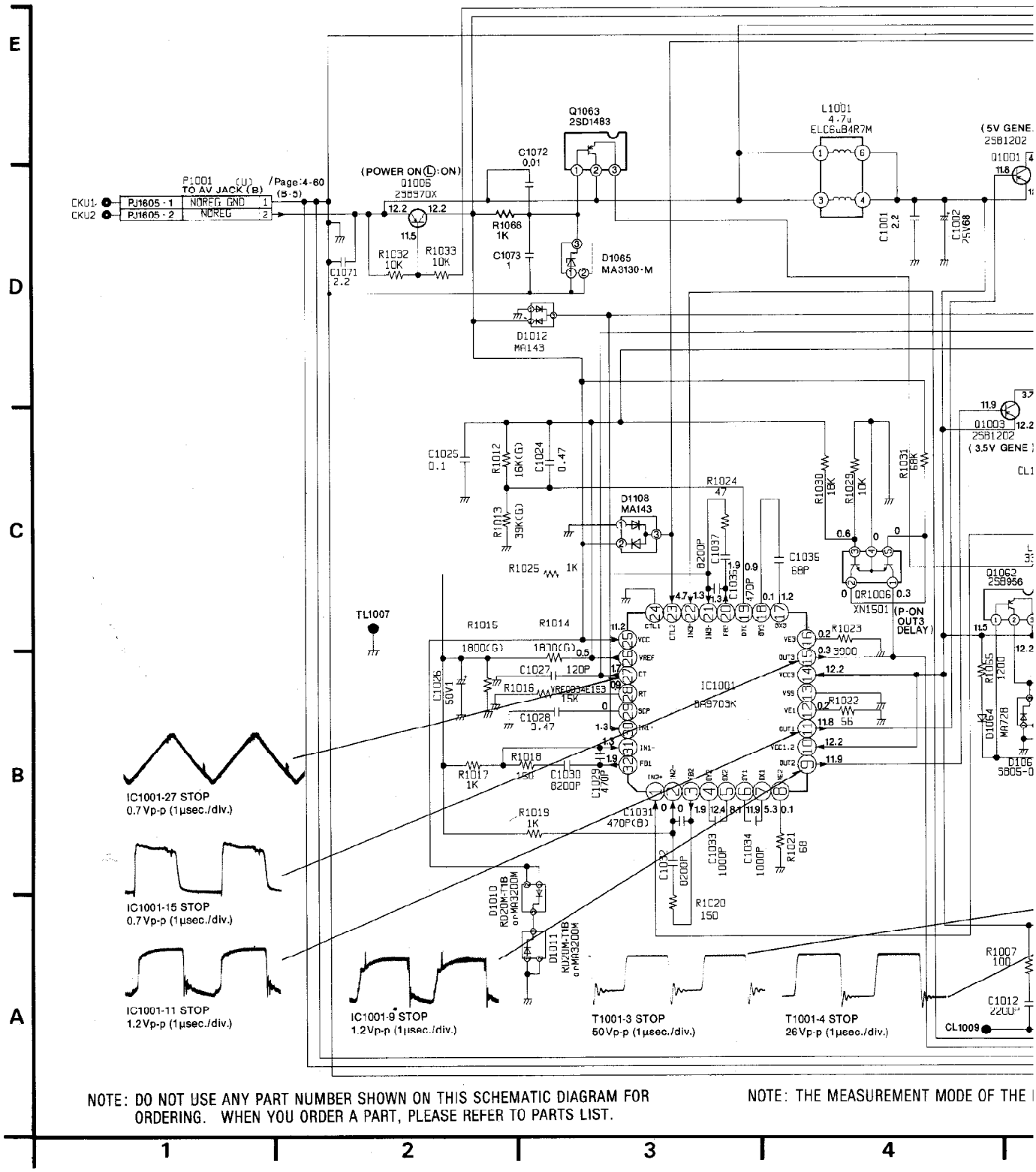


E ON THIS DIAGRAM IS STOP MODE
GRAY SCALE CHART.

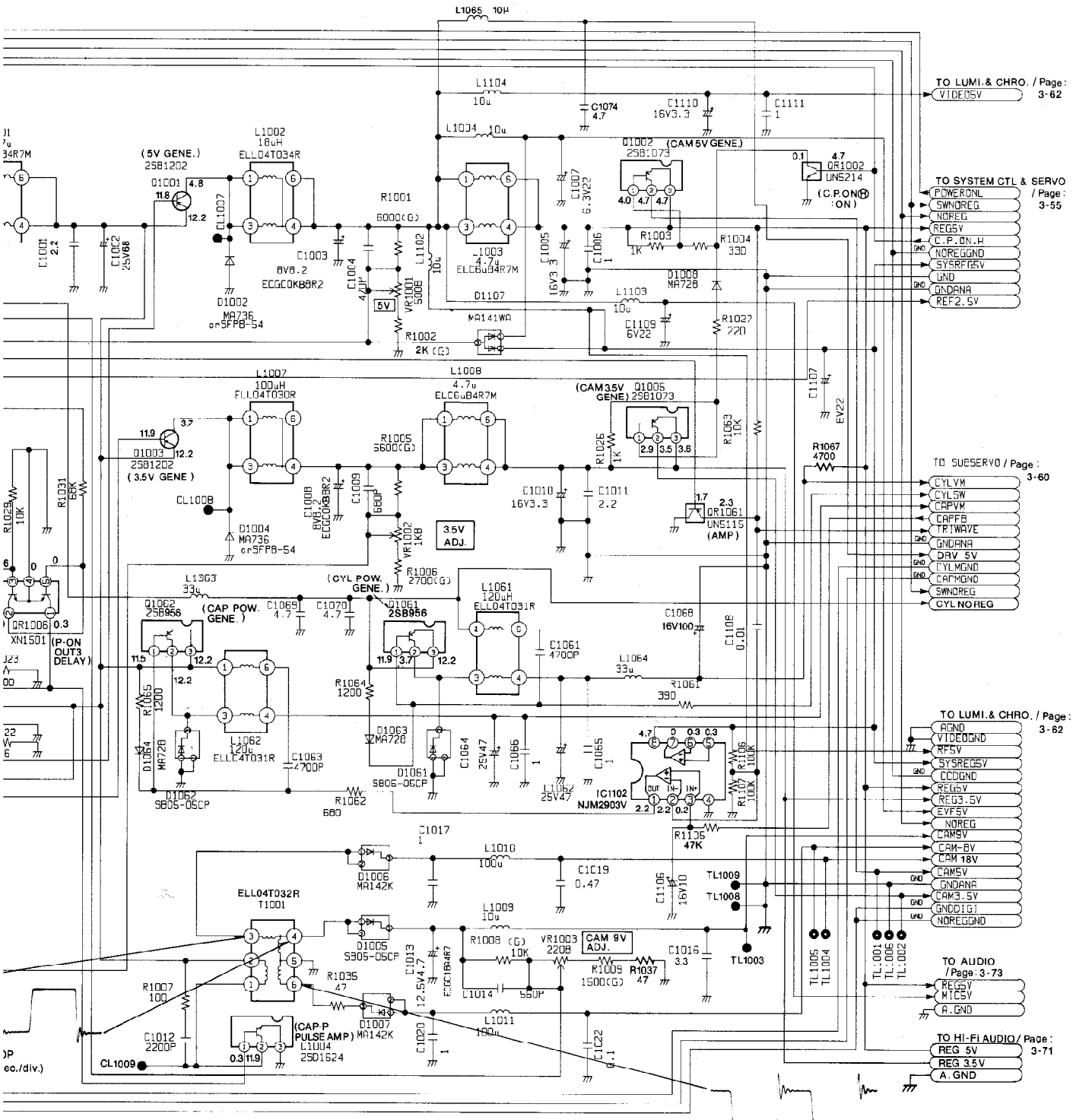
4 | 5 | 6 | 7


IC702-36 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (2msec./div.)
IC702-44 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)
IC702-43 POWER-ON
(FOCUS MOTOR DRIVING)
5.0Vp-p (20msec./div.)
IC708-16 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)
IC708-13 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)
IC708-9 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)
IC708-12 POWER-ON
(FOCUS MOTOR DRIVING)
12.5Vp-p (20msec./div.)
IC702
MN6782M7K
IC701
MN12821-Q
IC708
TB6604F
QR703
UN5213
TO.PROCESS/Page:3-33
P701 (1) TO MIC/PAGE:3-92
D
C
B
A
8
9

3-17. POWER SCHEMATIC DIAGRAM



Back Page:
AF & CAMERA OPERATION Section



ASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

4 5 6 7 8

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0	0	0	0	0	12.2	12.2	0	0	0	0	0	0	0	0	0	0
REC/PLAY	0	0	0	0	0	0	0	0	12.1	12.1	0	0	0	0	0	0.1	0	0	0	0
F.F	0	0	0	0	0	0	0	0	12.0	12.1	0	0	0	0	0	0	0	0	0	0

REF. NO.	IC6001																			
MODE	21	22	23	24																
STOP	0	0	0	0																
REC/PLAY	0	0	0.1	0																
F.F	0	0	0	0																

REF. NO.	IC6002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	4.6	0.1	4.7	4.7	4.7	1.7	1.7	0	0	0	0	0.1	0	0	4.3	3.8				
REC/PLAY	4.7	0.1	4.7	4.7	4.7	1.7	1.7	0	0	0	0	0	0	0	4.3	3.7				
F.F	4.7	0.1	4.7	4.7	4.7	1.7	1.7	0	0	0	0	0	0	0	4.3	3.8				

REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	0	0.8	0	0	0.5	0.8	0	1.8	1.8	4.7	0	0	0	1.8						
REC/PLAY	0	0.8	0	0	0.5	0.8	0	1.8	1.8	4.7	0	0	0	1.8						
F.F	0	0.8	0	0	0.5	0.8	0	1.8	1.8	4.7	0	0	0	1.8						

REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	4.7	4.7	4.7	4.7	4.7	4.6	4.7	4.7	0	4.7	0	4.7	4.7	4.7	4.7	4.7	0	0	0	0
REC/PLAY	4.7	4.7	4.7	4.6	4.7	4.6	4.7	4.7	0	0	0	4.7	4.7	4.7	4.7	—	4.7	4.7	4.7	4.2
F.F	4.7	4.6	4.7	4.7	4.7	4.6	4.7	4.7	0	4.7	0	4.7	4.7	3.5	4.7	0	0	0	0	0

REF. NO.	IC6004																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	1.9	0	4.7	0	0	4.7	0.8	0	0	0	0.1	4.7	0	0	0	—	—	0
REC/PLAY	0	0	1.9	0	4.7	0	0	4.7	0.8	0	0	0	0.1	4.7	0	0	0	—	—	0
F.F	0	0	1.9	0	4.7	0	0	4.7	0.8	0	0	0	0.1	4.7	0	0	0	0.1	4.7	0

REF. NO.	IC6004																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	2.1	0.8	1.0	0	0	0.8	4.7	—	—	4.7	0	4.3	4.6	4.5	4.7	4.7	4.7	2.3	4.6	4.7
REC/PLAY	0	2.1	1.0	0	0	0.8	4.7	—	0.3	—	—	4.4	4.5	4.5	4.7	4.7	4.7	0	4.6	4.7
F.F	0	0.8	1.0	0	0	0.8	4.7	4.7	0	4.7	0	4.4	4.6	4.4	4.7	4.7	4.6	0	4.6	4.7

REF. NO.	IC6004																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	4.7	0	4.7	0	0	4.7	2.3	0	4.7	0	0	0	2.4	2.4	2.3	0	2.4	2.4
REC/PLAY	0	0	—	0	—	0	0	4.7	2.3	0	1.3	0	0	0	2.4	2.3	2.3	0	2.4	2.4
F.F	0	0	4.7	0	4.7	0	0	4.7	2.3	0	4.7	0	0	0	2.4	2.4	2.3	0	2.4	2.4

REF. NO.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	2.1	2.6	4.7	0	0	0	2.4	2.4	0	0	2.4	0	0	4.1	4.7	0	4.7	4.7	4.7	4.7
REC/PLAY	2.1	2.6	4.7	—	—	0	2.4	2.3	0	0	2.4	0	2.1	2.3	4.7	0	4.6	4.7	4.7	4.6
F.F	2.1	2.6	4.7	0	0	0	2.4	2.4	0	0	2.4	0	1.9	4.1	4.7	0	4.7	4.7	4.7	4.6

REF. NO.	IC6004																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	4.6	2.9	0	0	4.7	4.7	3.7	2.5	4.3	0	0	0	4.7	4.7	4.5	4.7	4.7	4.7	4.7	4.7
REC/PLAY	4.6	2.9	0	0	4.7	4.7	—	2.5	4.6	—	0	0	4.7	4.7	4.6	4.6	4.7	4.7	4.7	4.7
F.F	4.6	2.9	0	0	4.7	4.7	—	2.5	4.3	0	0	0	4.7	4.7	4.6	4.6	4.7	4.7	4.7	4.7

REF. NO.	IC6004																			
MODE	121	122	123	124	125	126	127	128												
STOP	4.7	4.7	4.7	0	0	4.7	4.7	0												
REC/PLAY	4.7	0	0	0	0	4.7	4.7	0												
F.F	4.7	4.7	4.7	0	0	4.7	4.7	0												

REF. NO.	IC6005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	0	4.7	4.7	4.7	4.7	4.7	0	0.5	4.7	4.7	4.7	4.7	0	4.7						
REC/PLAY	0	4.7	4.7	4.7	4.7	4.7	0	0.5	4.7	4.7	4.7	4.7	0	4.7						
F.F	0	4.7	4.7	4.7	4.7	4.7	0	0.5	4.6	4.7	4.6	4.6	0	4.7						

REF. NO.	IC6006																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	4.7	4.7	4.7	4.7	4.7	4.7	0	0	4.7	4.7	4.7	4.7	4.7	4.7						
REC/PLAY	4.7	4.7	4.7	4.7	4.7	4.7	0	0	4.7	4.7	4.7	4.7	4.7	4.7						
F.F	4.7	4.7	4.7	4.7	4.7	4.7	0	0	4.7	4.7	4.7	4.7	4.7	4.7						

REF. NO.	IC607																			
MODE	1	2	3	4	5															
STOP	4.3	4.6	0	0.8	4.7															
REC/PLAY	4.3	4.6	0	0.8	4.7															
F.F	4.4	4.6	0	0.8	4.7															

REF. NO.	IC6008																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	4.7	4.7	4.7	4.7	4.7	4.7	0	4.7	4.7	4.7	4.7	4.7	4.7	4.7						
REC/PLAY	4.7	4.7	4.7	4.7	4.7	4.7	0	4.7	4.7	4.7	4.7	4.7	4.7	4.7						
F.F	4.7	4.6	4.7	4.7	4.6	4.7	0	4.7	4.7	4.7	4.7	4.7	4.7	4.7						

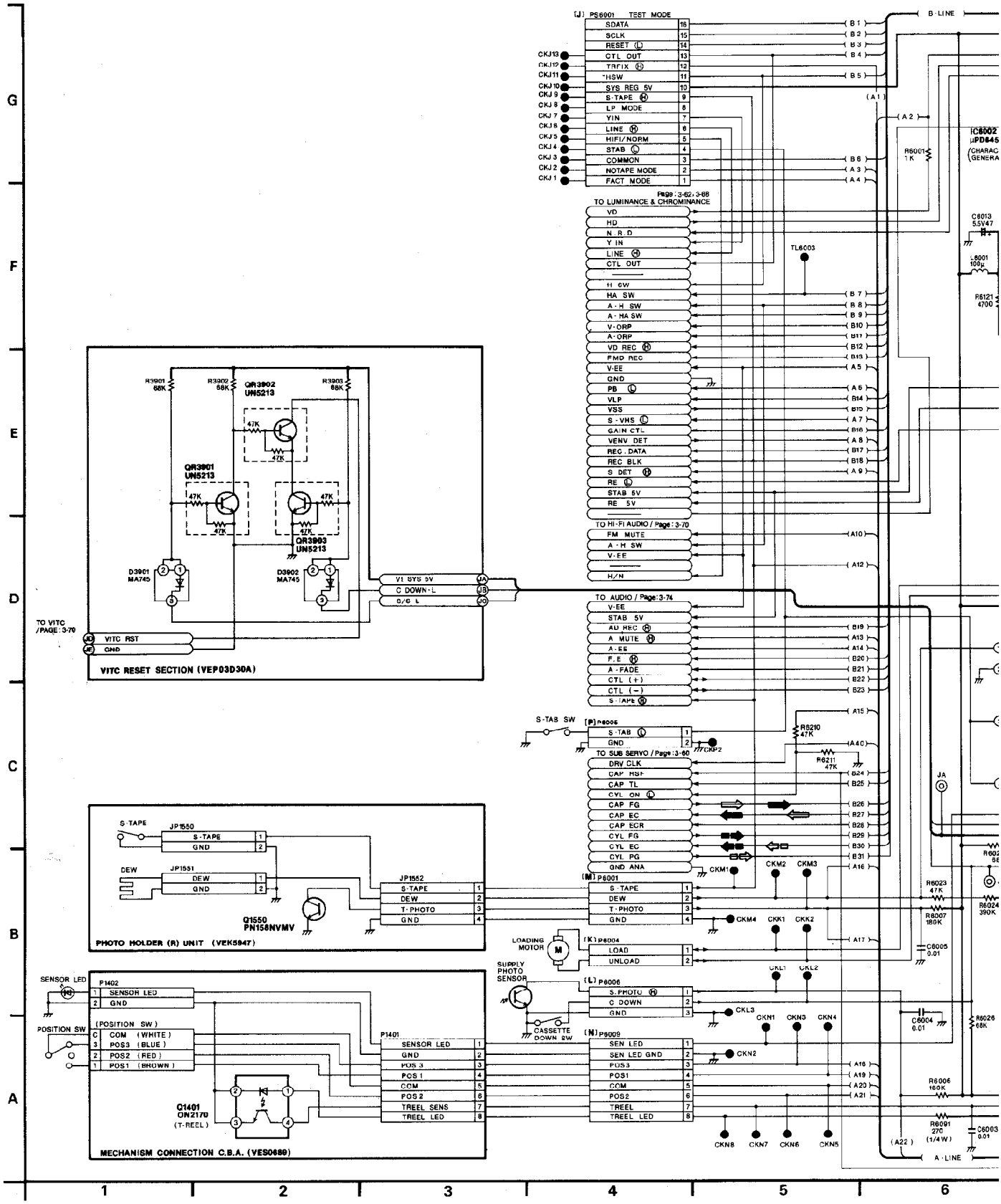
SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART

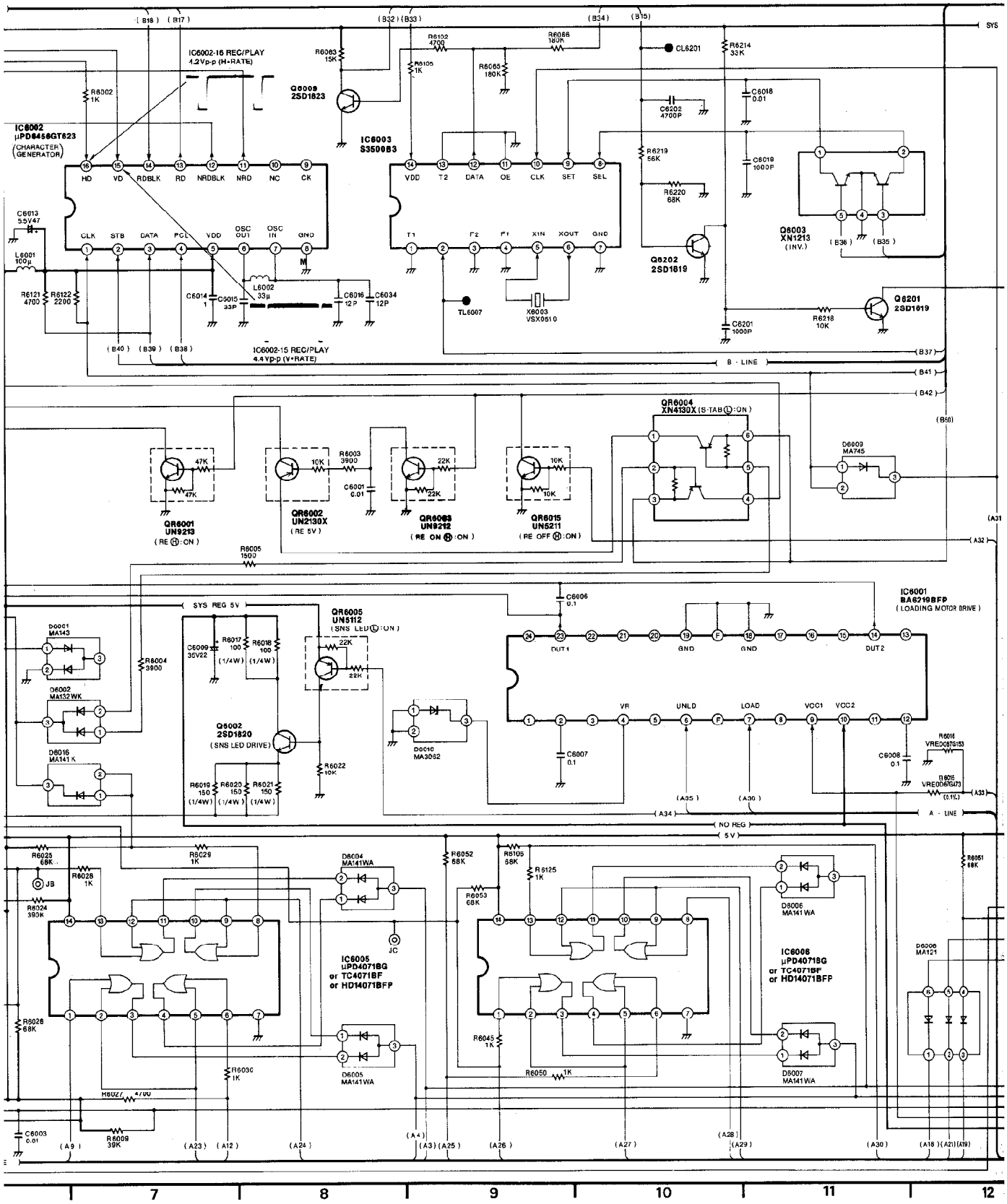
REF. NO.	IC6009										IC6010									
MODE	1	2	3								1	2	3							
STOP	0	4.7	4.7								5.0	0	12.2							
REC/PLAY	0	4.7	4.7								5.0	0	12.1							
F.F	0	4.7	4.7								5.0	0	12.1							
REF. NO.	IC6011																			
MODE	1	2	3	4	5															
STOP	4.7	4.5	0	4.5	4.7															
REC/PLAY	4.7	4.6	0	4.6	4.7															
F.F	4.6	4.6	0	4.7	4.7															

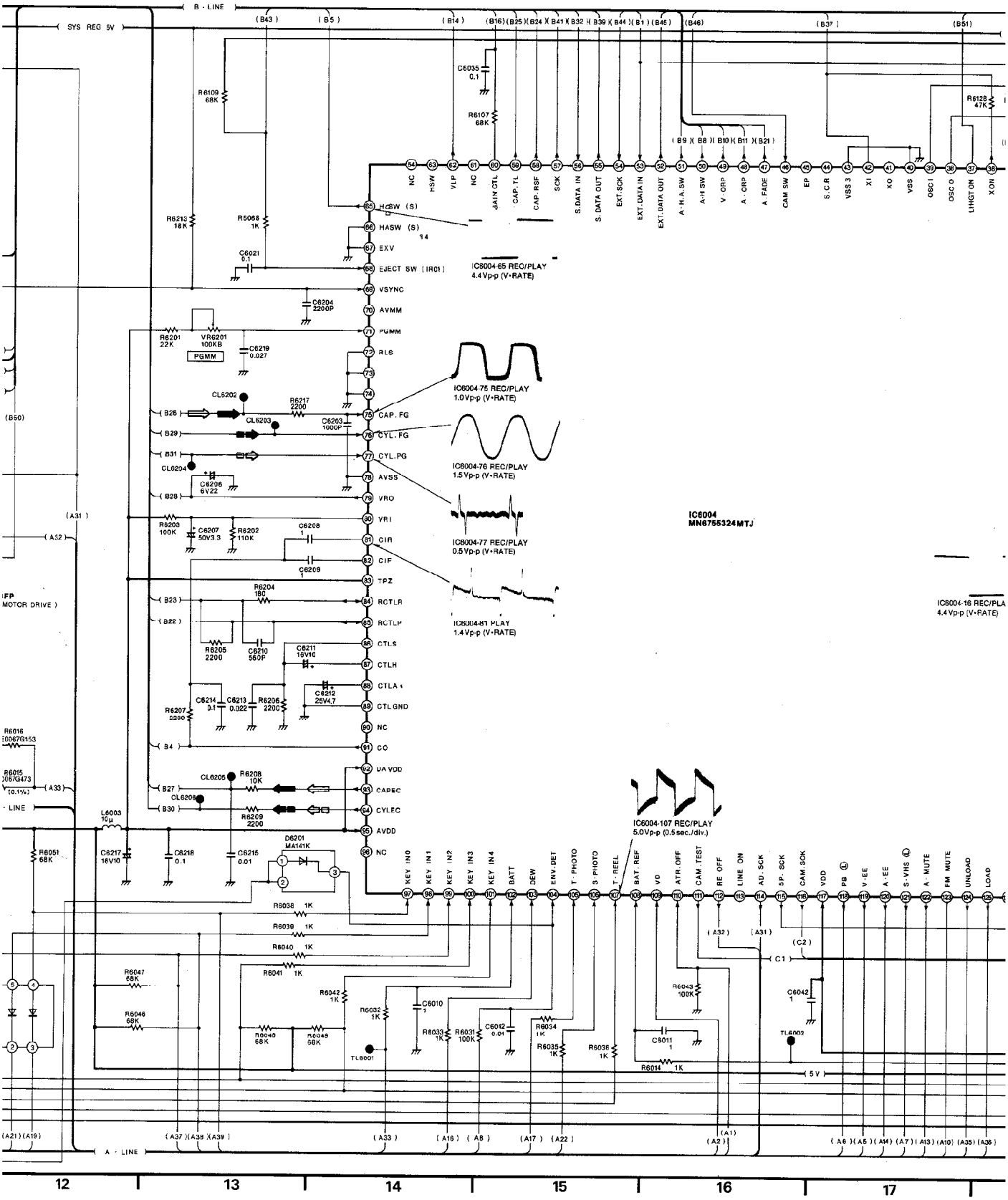
SYSTEM CONTROL & SERVO TRANSISTORs DC VOLTAGE CHART

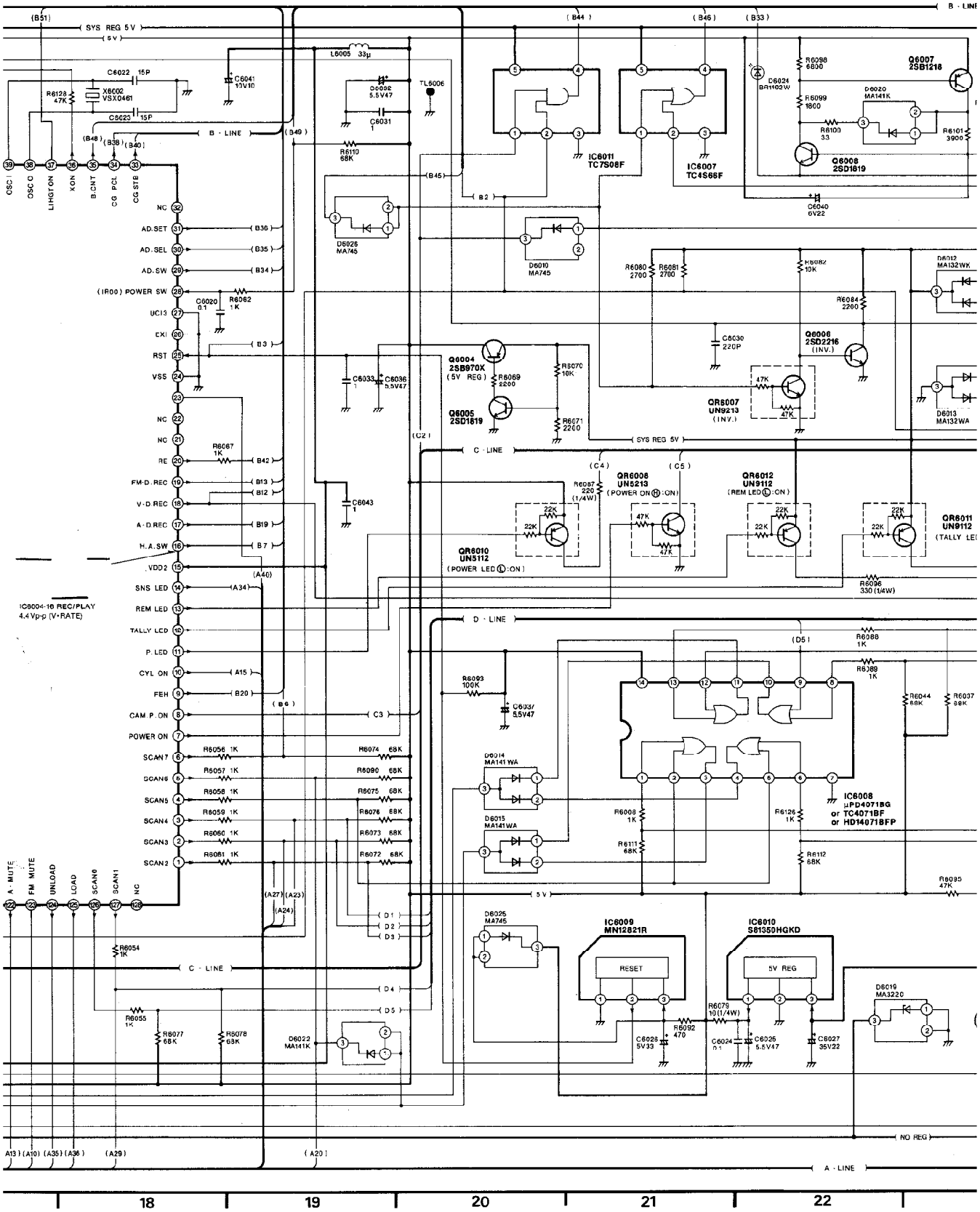
REF. NO.	Q6002			Q6003						Q6004			Q6005			Q6006		
MODE	E	C	B	1	2	3	4	5		E	C	B	E	C	B	E	C	B
STOP	0	12.2	0	1.8	1.8	0	0	0		4.7	4.7	4.0	0	0.1	0.7	0	4.6	0.1
REC/PLAY	0	12.1	0	1.8	1.8	0	0	0		4.7	4.7	4.0	0	0.1	0.7	0	4.7	0.1
F.F	1.6	10.9	1.6	1.8	1.8	0	0	0		4.7	4.7	4.0	0	0.1	0.7	0	4.6	0.1
REF. NO.	Q6007			Q6008			Q6009			Q6010			Q6012					
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	4.7	0	4.7	3.1	0	0	0	4.9	0	9.8	12.2	10.4	0	4.6	0			
REC/PLAY	4.7	0	4.7	3.1	3.9	0	0	4.7	0.1	9.8	12.0	10.2	0	4.6	0			
F.F	4.7	0	4.7	3.1	4.0	0	0	4.6	0	9.7	12.0	10.2	0	4.6	0			
REF. NO.	QR6001			QR6002			QR6003			QR6004						QR6005		
MODE	E	C	B	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B
STOP	0	0.1	0	4.7	0.1	4.7	0	0	0	4.7	4.0	4.7	4.7	4.1	4.7	4.7	0	4.7
REC/PLAY	0	0	4.4	4.7	1.6	4.7	0	4.7	0.1	4.7	0	4.7	4.6	4.0	4.7	4.7	0	4.7
F.F	0	0	0	4.7	0.1	4.7	0	4.7	0	4.7	4.0	4.7	4.7	4.1	4.7	4.7	1.6	3.8
REF. NO.	QR6006			QR6007			QR6008			QR6010			QR6011			QR6012		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	0	0	0.1	4.5	0	0.1	4.7	4.7	4.6	0	4.7	0	4.7	4.7	0	4.7
REC/PLAY	0	4.7	0	0	0.1	4.3	0	0.1	4.7	4.7	4.6	0	4.7	0	0	4.7	4.7	0
F.F	0	4.7	0	0	0.1	4.3	0	0.1	4.7	4.7	4.6	0	4.7	0	4.7	4.7	0	4.7
REF. NO.	QR6013			QR6014			QR6015			QR6016			QR6017			QR6018		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	12.6	0	0	0	0	0	0	0	0	0	0	0	4.5	0	0	2.1
REC/PLAY	0	0	12.5	0	0	4.7	0	0	4.7	0	0	0	0	0	4.5	0	0	2.1
F.F	0	0	12.4	0	0	0	0	0	0	0	0	0	0	0	4.5	0	0	2.1

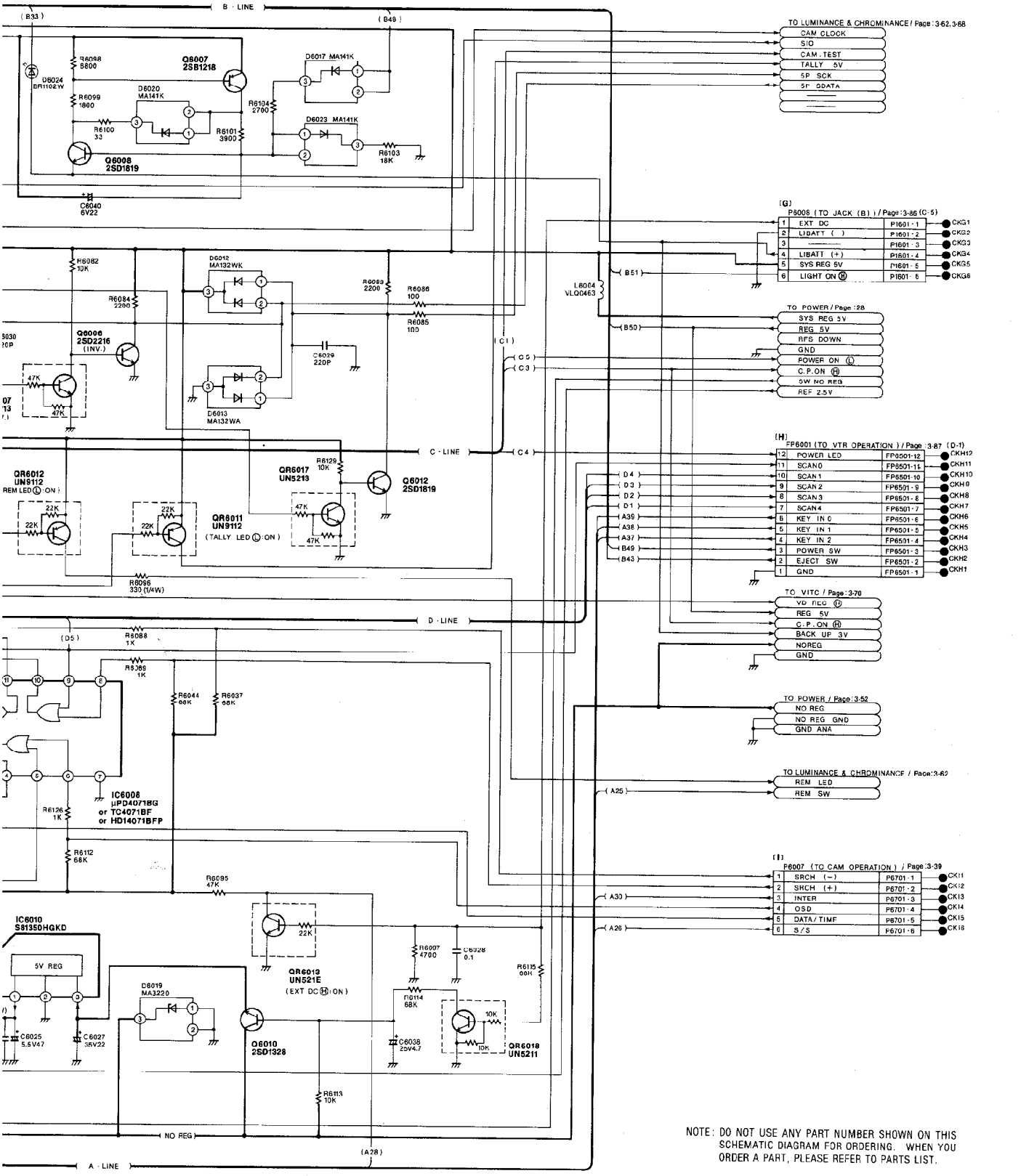
3-18. SYSTEM CONTROL/SERVO & VITC RESET SCHEMATIC DIAGRAM




IC6002 µPD8456GT623 (CHARACTER GENERATOR)
IC6002-16 REC/PLAY 4.2Vp-p (H-RATE)
IC6002-15 REC/PLAY 4.4Vp-p (V-RATE)
Q6009 2SD1823
IC6003 S3500B3
Q6003 XN1213 (INV.)
Q6202 2SD1819
Q6201 2SD1819
TL6007
X6003 VSX0510
QR6001 UN9213 (RE H:ON)
QR6002 UN2130X (RE 5V)
QR6003 UN9212 (RE ON H:ON)
QR6015 UN5211 (RE OFF H:ON)
QR6004 XN4130X (S-TAB L:ON)
QR6005 UN5112 (SNS LED L:ON)
Q6002 2SD1820 (SNS LED DRIVE)
IC6001 BA6219BFP (LOADING MOTOR DRIVE)
IC6005 µPD4071BG or TC4071BF or HD14071BFP
IC6006 µPD4071BG or TC4071BF or HD14071BFP
SYS
SYS REG 5V
B - LINE
A - LINE
NO REG
5V
7
8
9
10
11
12

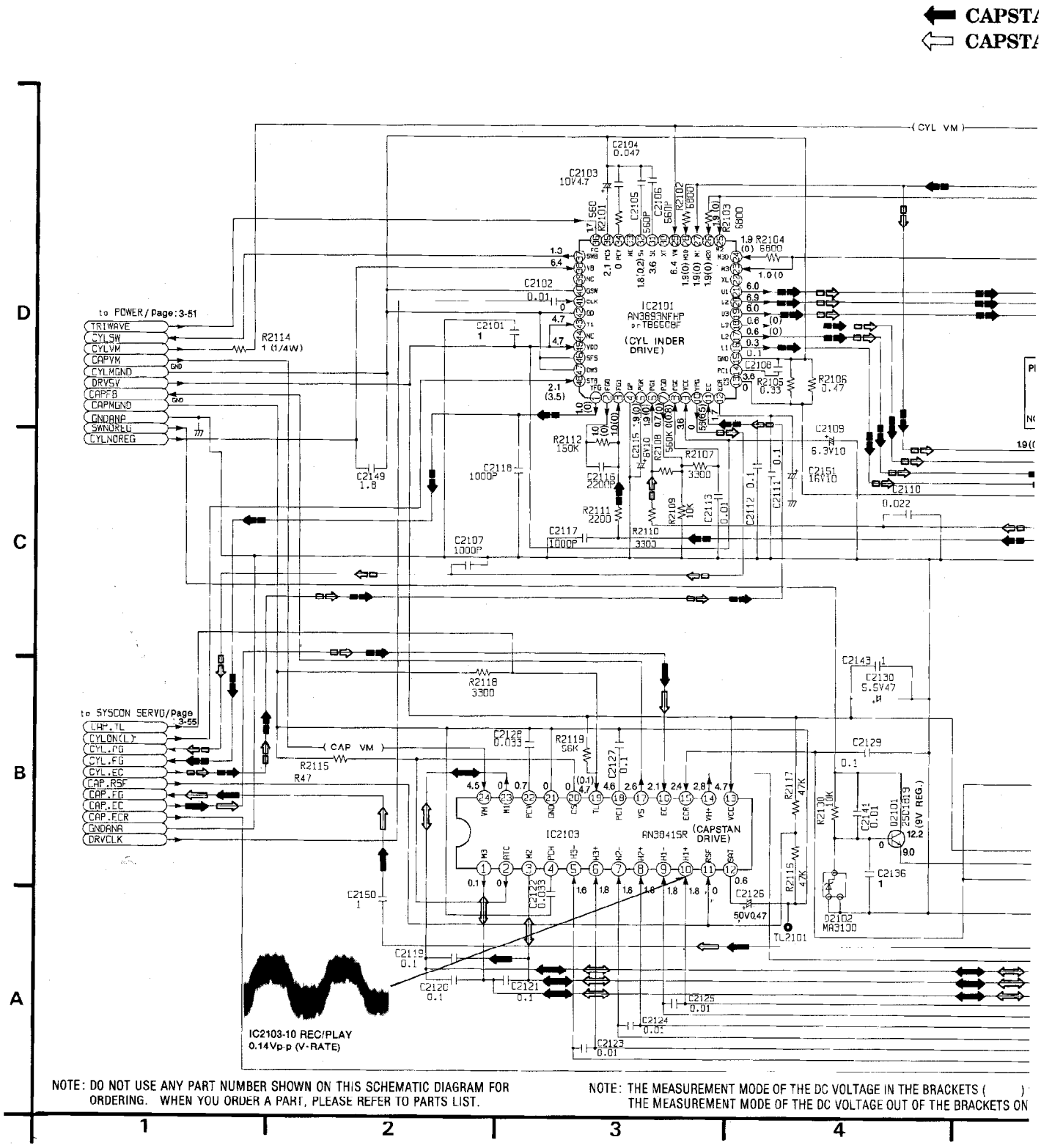

B - LINE
SYS REG 5V
IC6004
MN6755324MTJ
IC6004-65 REC/PLAY
4.4Vp-p (V-RATE)
IC6004-75 REC/PLAY
1.0Vp-p (V-RATE)
IC6004-76 REC/PLAY
1.5Vp-p (V-RATE)
IC6004-77 REC/PLAY
0.5Vp-p (V-RATE)
IC6004-81 PLAY
1.4Vp-p (V-RATE)
IC6004-107 REC/PLAY
5.0Vp-p (0.5sec./div.)
IC6004-16 REC/PLA
4.4Vp-p (V-RATE)
HSW (S)
HASW (S)
EXV
EJECT SW (IRQ1)
VSYNC
AVMM
PGMM
RLS
CAP. FG
CYL. FG
CYL. PG
AVSS
VRO
VRI
CIR
CIF
TPZ
RCTLR
RCTLF
CTLS
CTLH
CTLA
CTL GND
NC
CO
DA VDD
CAPEC
CYLEC
AVDD
NC
KEY IN0
KEY IN1
KEY IN2
KEY IN3
KEY IN4
BATT
DEW
ENV. DET
T. PHOTO
S. PHOTO
T. REEL
BAT. REF
VD
ATR. OFF
CAM. TEST
RE. OFF
LINE ON
AD. SCK
SP. SCK
CAM. SCK
VDD
PB
V-EE
A-EE
S-VHS
A-MUTE
FM MUTE
UNLOAD
LOAD
NC
HSW
VLP
NC
GAIN CTL
CAP. TL
CAP. RSF
SCK
S. DATA IN
S. DATA OUT
EXT. SCK
EXT. DATA IN
EXT. DATA OUT
A-M. A. SW
A-H SW
V. CRP
A. CRP
A. FADE
CAM SW
EP
S. C. R
VSS 3
XI
XO
VSS
OSC I
OSC O
LIHGT ON
XON
R6109 68K
R6107 68K
C6035 0.1
R6128 47K
R6213 18K
R6068 1K
C6021 0.1
C6204 2200P
R6201 22K
VR6201 100KB
C6219 0.027
CL6202
CL6203
CL6204
R6217 2200
C6203 1000P
C6206 6V22
R6203 100K
C6207 50V3.3
R6202 110K
C6208 1
C6209 1
R6204 180
R6205 2200
C6210 560P
C6211 16V10
C6212 25V4.7
C6214 0.1
C6213 0.022
R6206 2200
R6207 2200
CL6205
CL6206
R6208 10K
R6209 2200
L6003 10µ
C6217 16V10
C6218 0.1
C6215 0.01
D6201 MA141K
R6051 68K
R6038 1K
R6039 1K
R6040 1K
R6041 1K
R6047 68K
R6046 68K
R6042 1K
R6043 100K
C6042 1
C6010 1
R6032 1K
R6033 1K
R6031 100K
C6012 0.01
R6034 1K
R6035 1K
R6036 1K
C6011 1
R6014 1K
TL6001
TL6002
5 V
(B43) (B5) (B14) (B16) (B25) (B24) (B41) (B32) (B39) (B44) (B1) (B45) (B46) (B37) (B51)
(B9) (B8) (B10) (B11) (B21)
(B50)
(A31)
(A32)
(B26) (B29) (B31) (B28) (B23) (B22) (B4) (B27) (B30)
(A33)
(A21) (A19)
(A37) (A38) (A39)
(A16) (A8) (A17) (A22)
(A1) (A2)
(A6) (A5) (A34) (A7) (A13) (A10) (A35) (A36)
(C2) (C1)
A - LINE
12
13
14
15
16
17


SYS REG 5V
B - LINE
C - LINE
D - LINE
A - LINE
NO REG
IC6011 TC7S08F
IC6007 TC4S66F
IC6008 μPD4071BG or TC4071BF or HD14071BFP
IC6009 MN12821R
IC6010 S81350HGKD
RESET
5V REG
Q6004 2SB970X (5V REG)
Q6005 2SD1819
Q6006 2SD2216 (INV.)
Q6007 2SB1218
Q6008 2SD1819
QR6007 UN9213 (INV.)
QR6008 UN5213 (POWER ON:ON)
QR6010 UN5112 (POWER LED:ON)
QR6011 UN9112 (TALLY LED)
QR6012 UN9112 (REM LED:ON)
IC6004-16 REC/PLAY 4.4 Vp-p (V-RATE)
18
19
20
21
22



NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-19. SUB SERVO SCHEMATIC DIAGRAM



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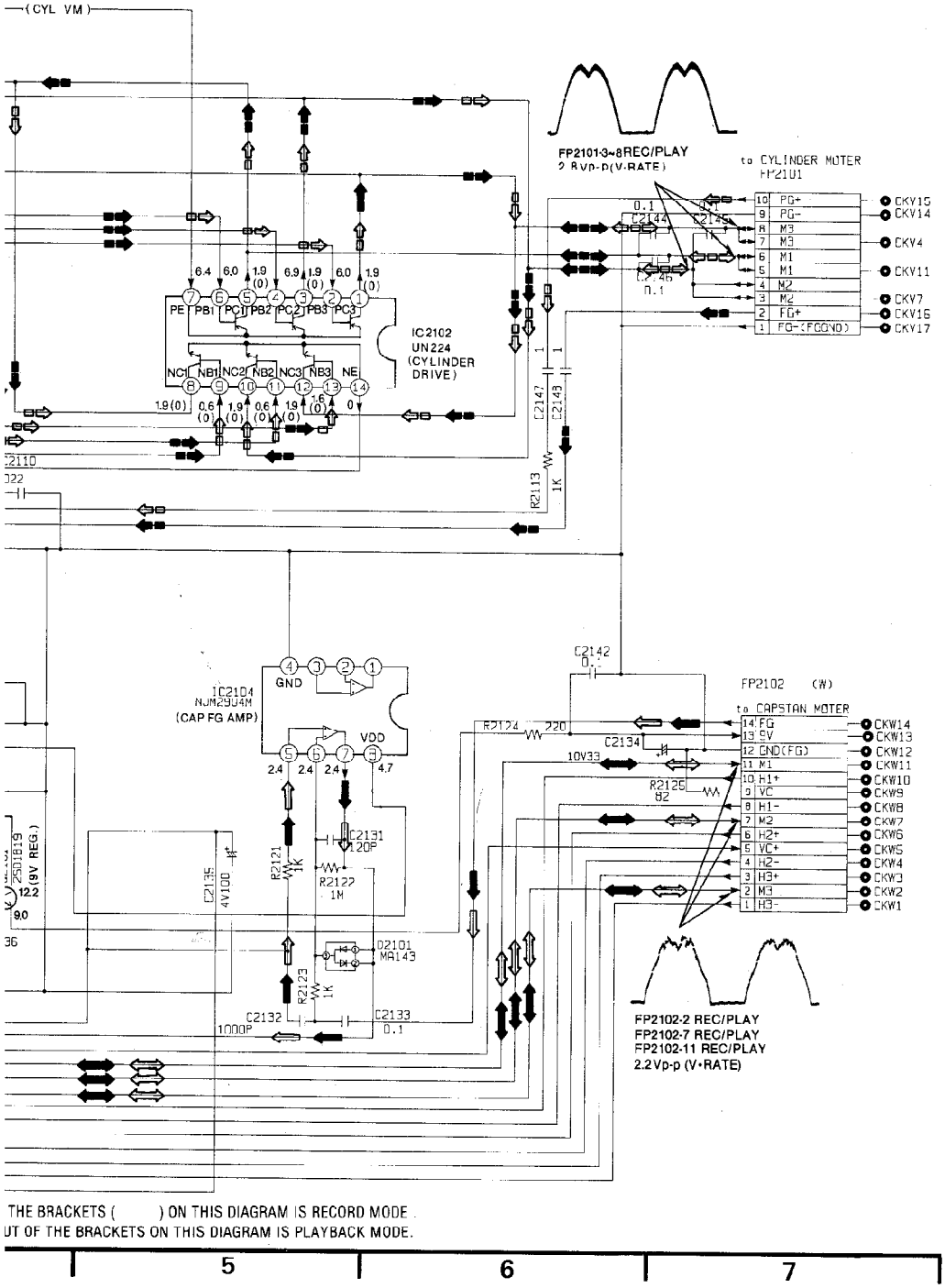
SYSTEM

CAPSTAN SERVO SPEED LOOP **CYLINDER SERVO SPEED LOOP**
CAPSTAN SERVO PHASE LOOP **CYLINDER SERVO PHASE LOOP**



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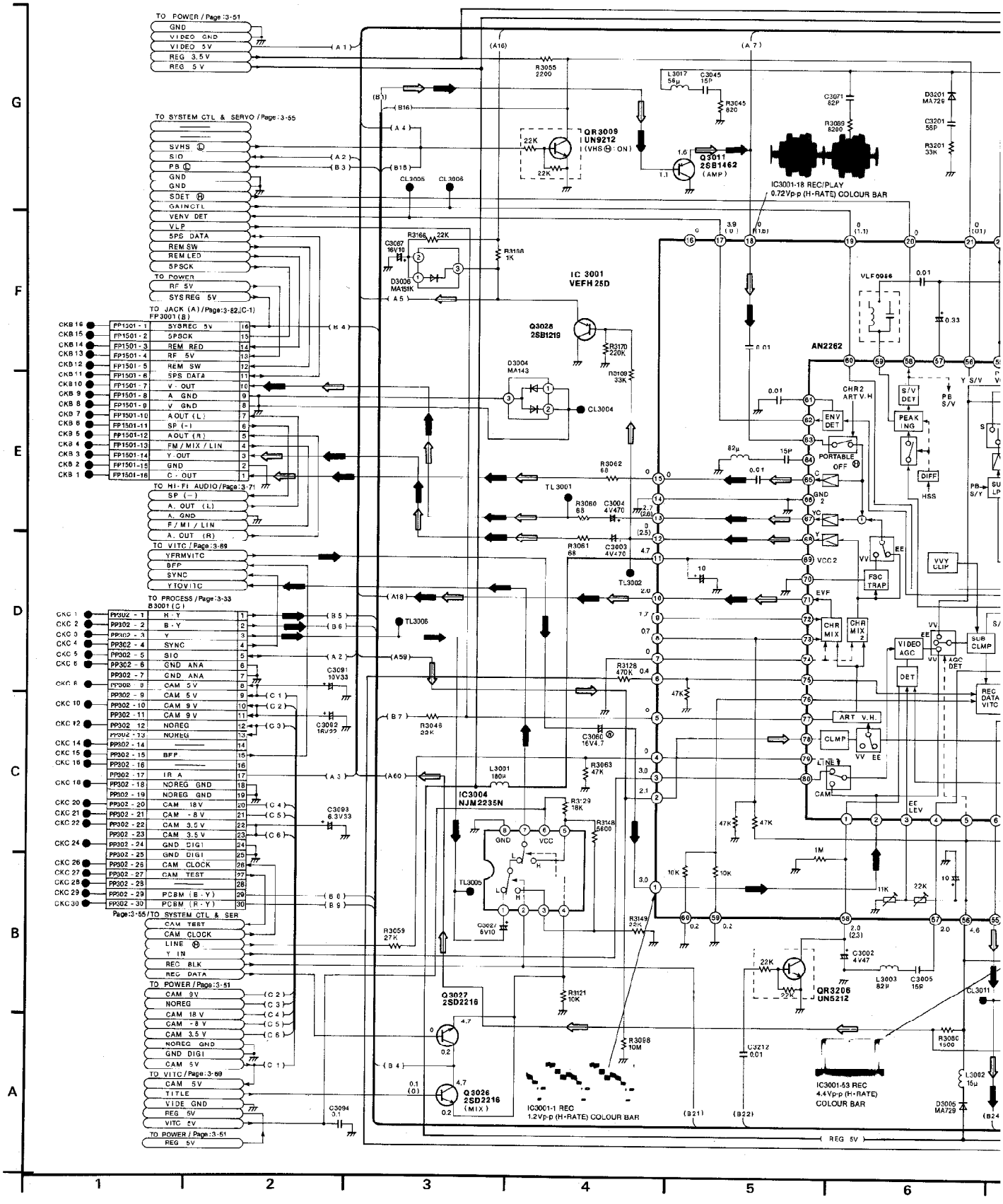
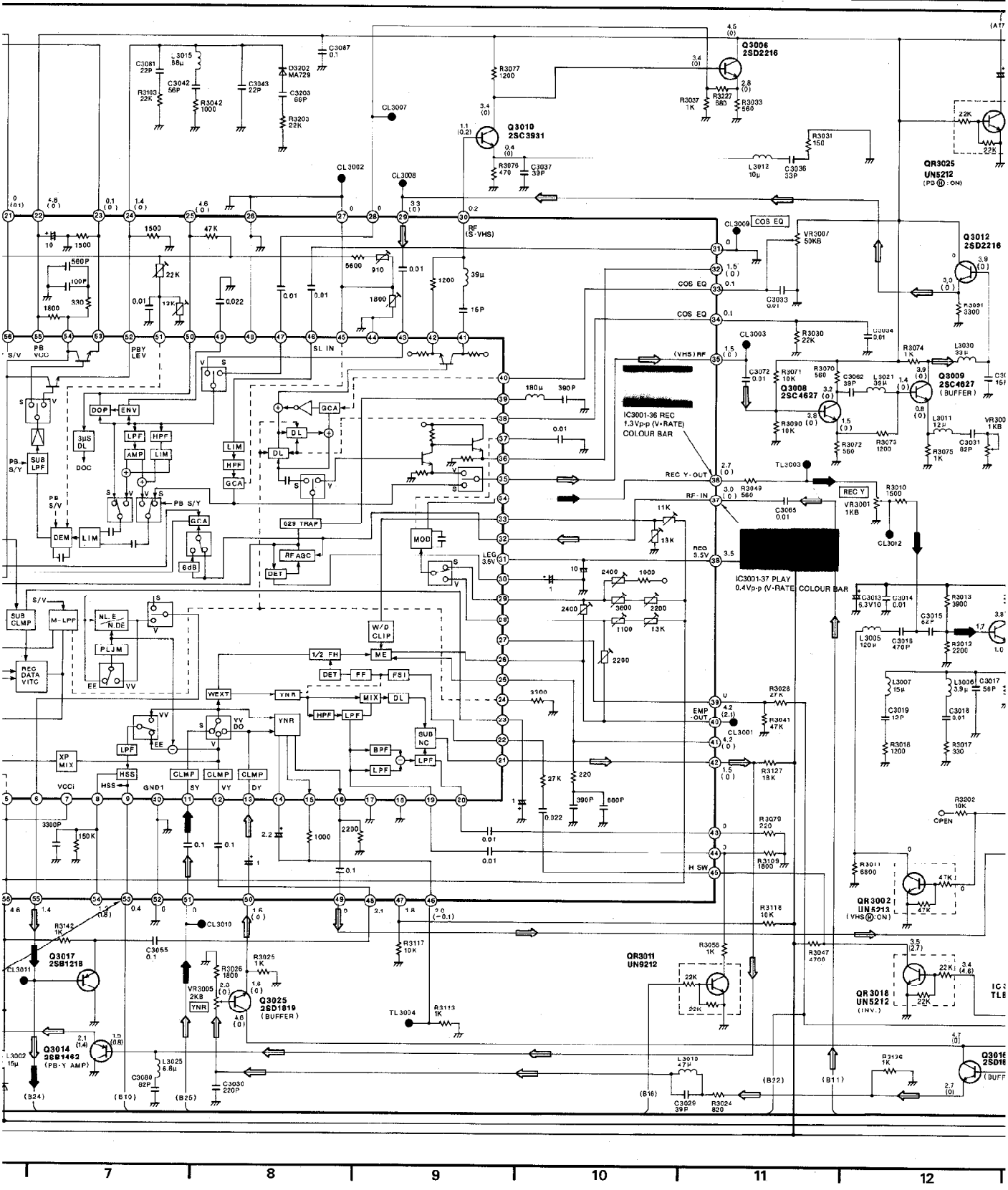
SYSTEM CTL & SERVO Section

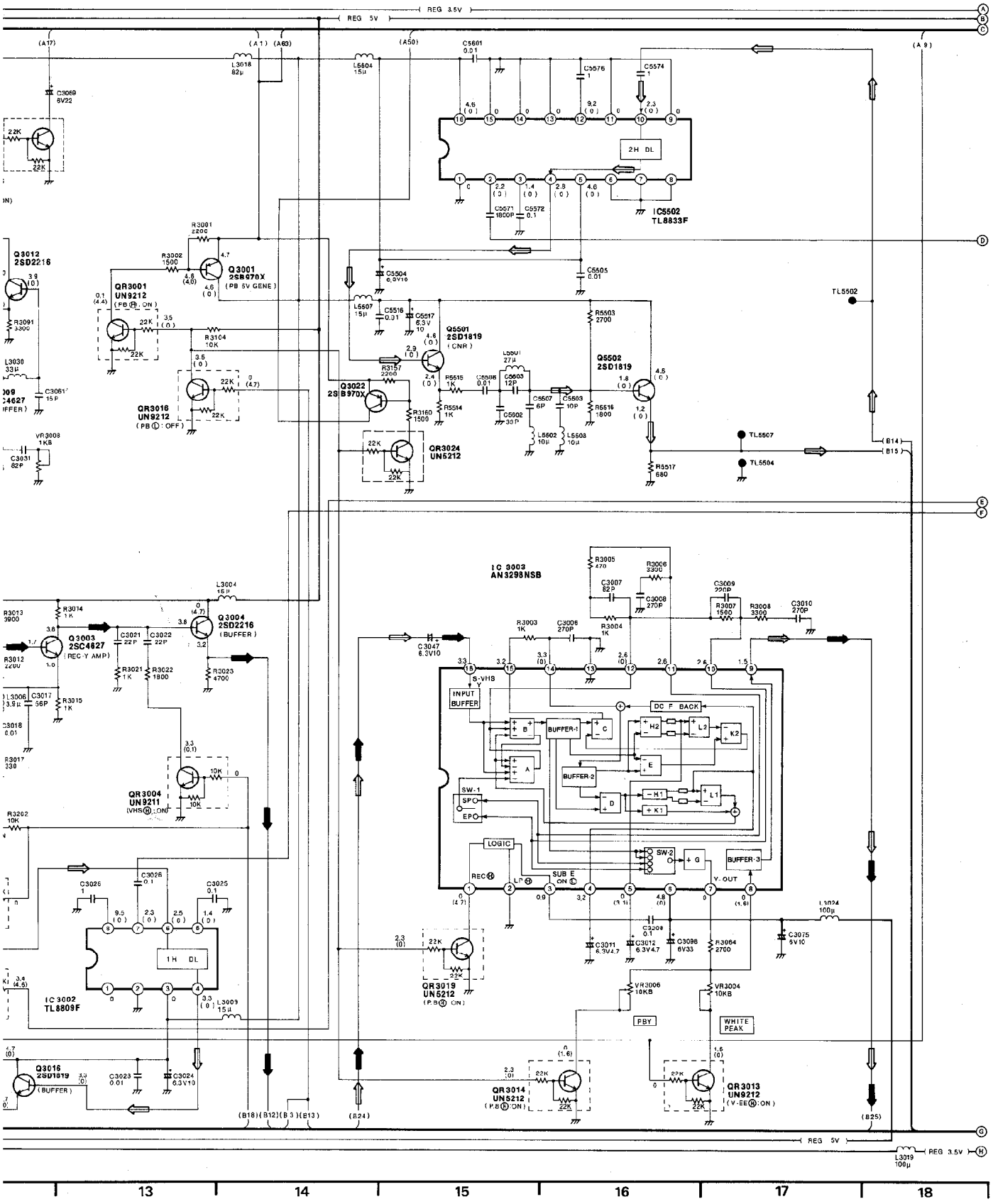
Section

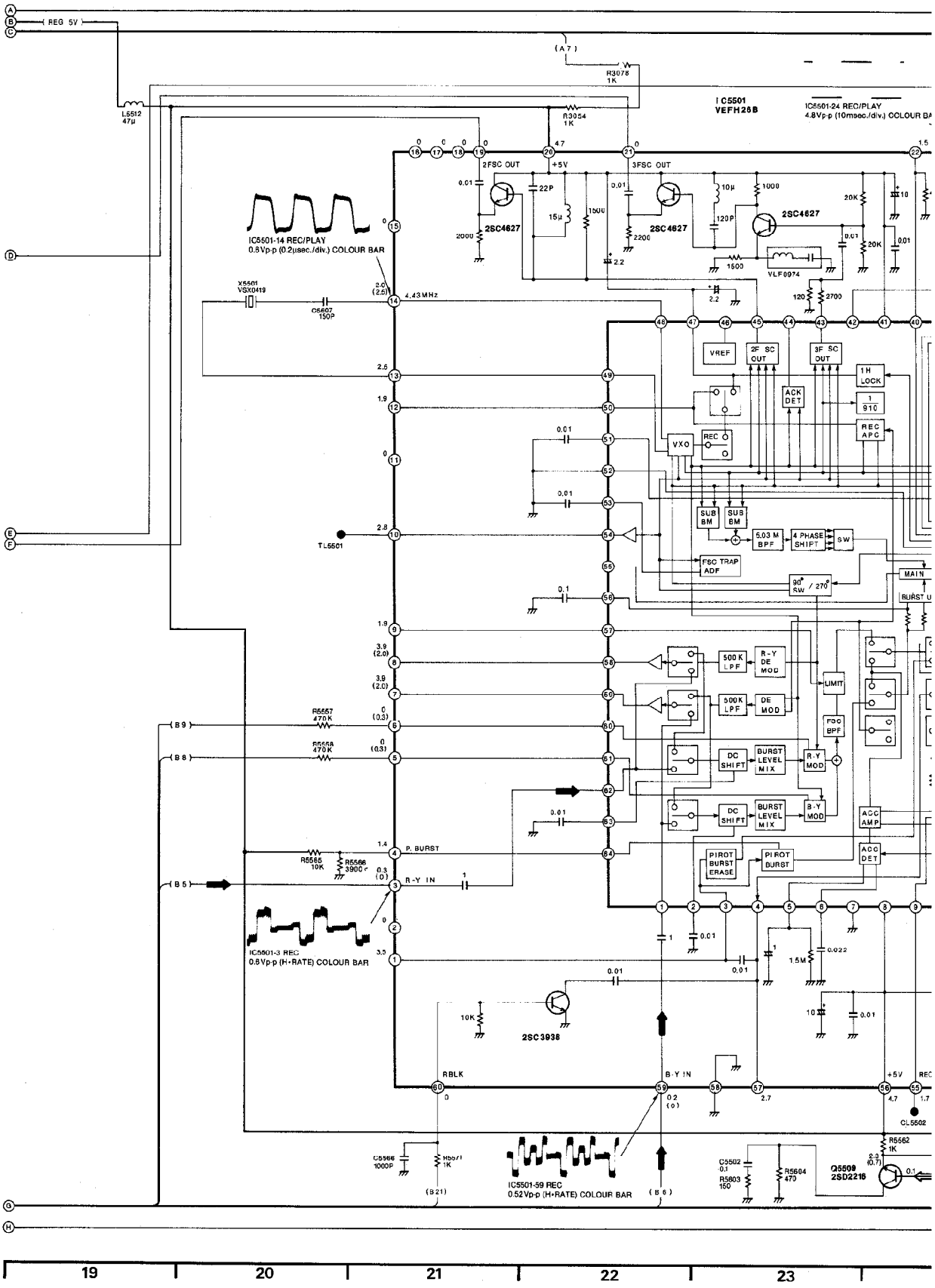
3-20. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC DIAGRAM

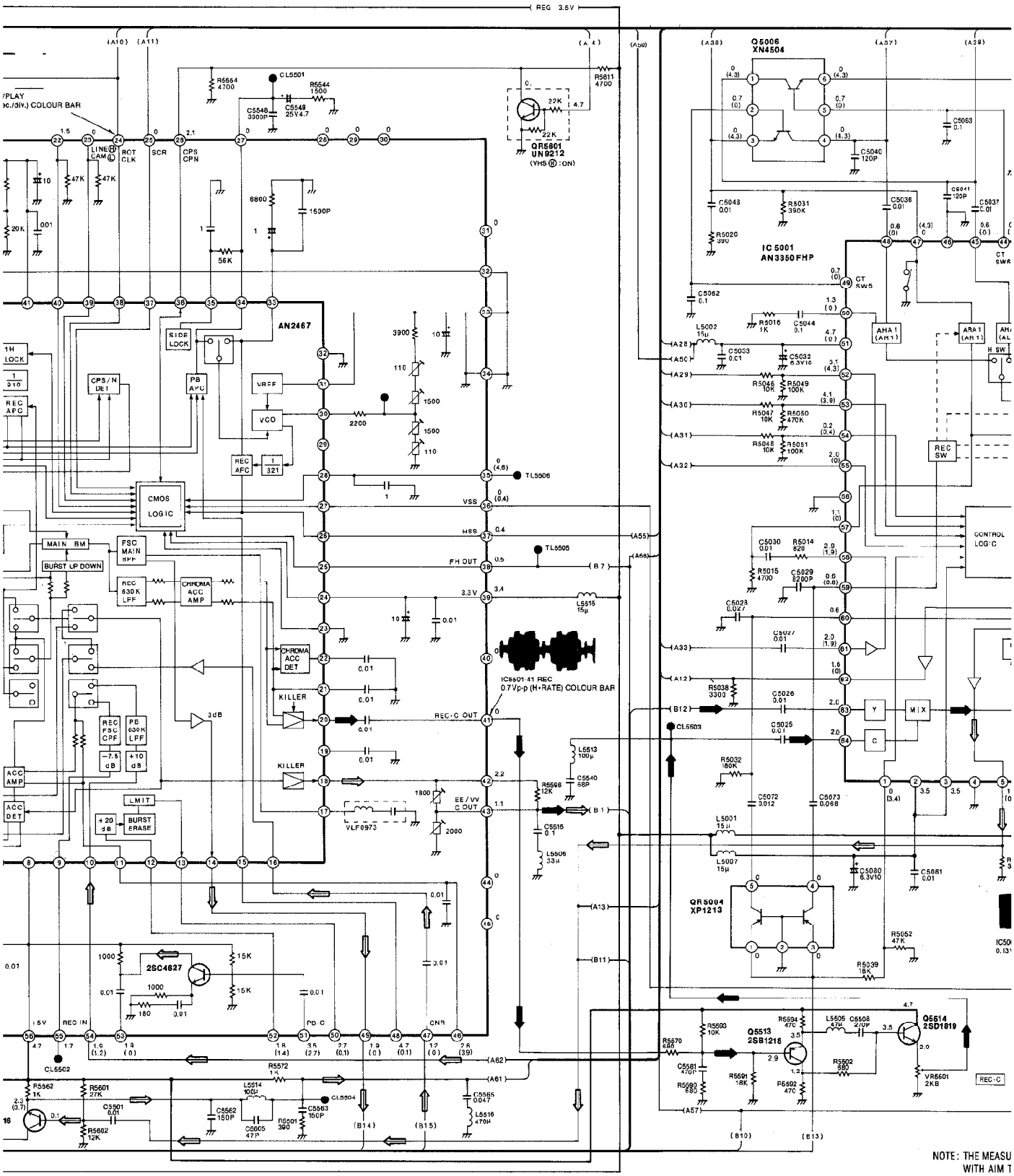


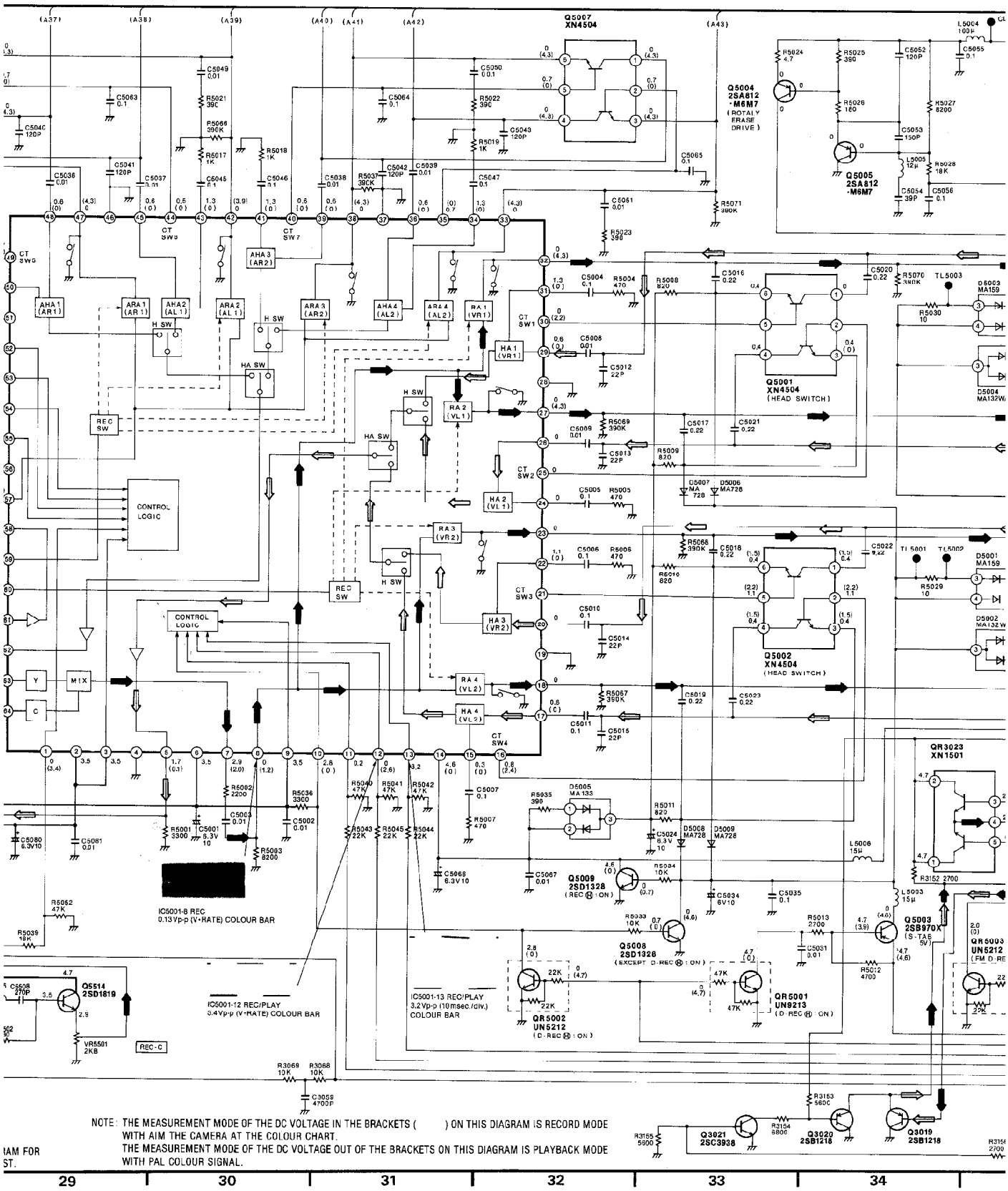

Q3006
2SD2216
Q3010
2SC3931
Q3012
2SD2216
Q3009
2SC4627
(BUFFER)
Q3008
2SC4627
Q3017
2SB1218
Q3014
2SB1462
(PB-Y AMP)
Q3025
2SD1819
(BUFFER)
QR3025
UN5212
(PB ⓜ : ON)
QR3002
UN5213
(VHS ⓜ : ON)
QR3011
UN9212
QR3018
UN5212
(INV.)
IC3001-36 REC
1.3Vp-p (V-RATE)
COLOUR BAR
IC3001-37 PLAY
0.4Vp-p (V-RATE)
COLOUR BAR
COS EQ
REC Y-OUT
RF-IN
EMP-OUT
H SW
(VHS) RF
RF
(S-VHS)
SL IN
PB S/V
PBY LEV
REC Y
DOP
ENV
AMP
LPF
HPF
LIM
DEM
SUB LPF
3μS DL
DOC
GCA
DL
MOD
RF AGC
629 TRAP
6dB
DET
SUB CLMP
M-LPF
NL.E
N.DE
PLJM
REC DATA VITC
W/D CLIP
1/2 FH
ME
DET
FF
FSI
WEXT
YNR
MIX
SUB NO
XP MIX
HSS
CLMP
VCC1
GND1
SY
VY
DY
REG 3.5V
LEG 3.5V
(B10)
(B11)
(B16)
(B22)
(B24)
(B25)

MAIN SIGNAL PATH IN REC MODE ⇦ **MAIN SIGNAL PATH IN PLAYBACK MODE**



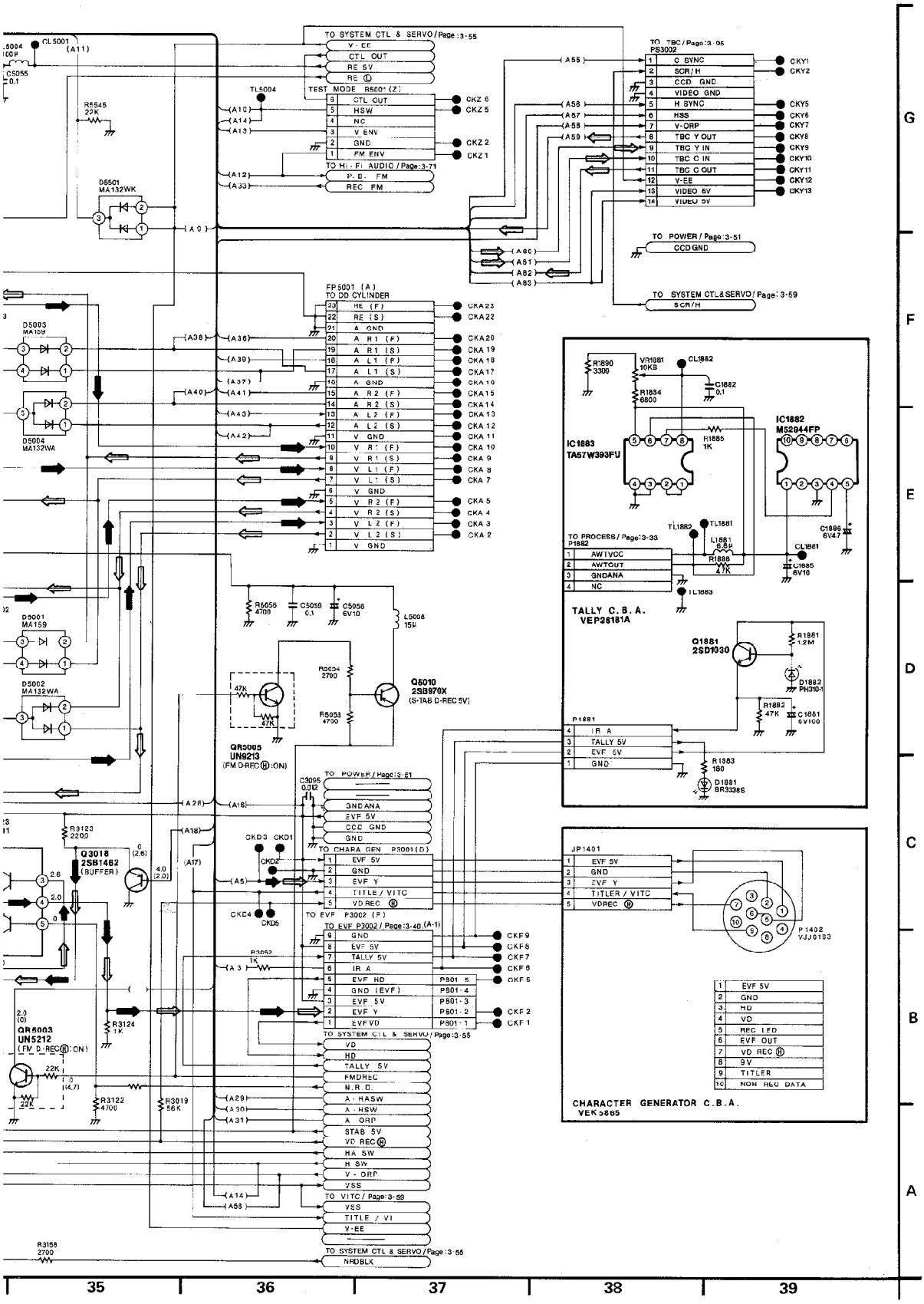

REG 5V
L5512 47µ
R3078 1K
R3054 1K
IC5501 VEFH25B
IC5501-24 REC/PLAY
4.8Vp-p (10msec./div.) COLOUR BA
2FSC OUT
+5V
3FSC OUT
2SC4627
2SC4627
2SC4627
VLF0974
IC5501-14 REC/PLAY
0.8Vp-p (0.2µsec./div.) COLOUR BAR
X5501 VSX0419
C5507 150P
4.43MHz
VREF
2F SC OUT
3F SC OUT
1H LOCK
ACK DET
1/910
REC APC
VXO
REC
SUB BM
SUB BM
5.03 M BPF
4 PHASE SHIFT
SW
FSC TRAP ADF
90° SW / 270°
MAIN
BURST U
TL5501
500 K LPF
R-Y DE MOD
500K LPF
DE MOD
LIMIT
FSC BPF
DC SHIFT
BURST LEVEL MIX
R-Y MOD
DC SHIFT
BURST LEVEL MIX
B-Y MOD
ACC AMP
ACC DET
PILOT BURST ERASE
PILOT BURST
P. BURST
R-Y IN
R5557 470K
R5558 470K
R5565 10K
R5566 3900
IC5501-3 REC
0.8Vp-p (H-RATE) COLOUR BAR
2SC3938
RBLK
B-Y IN
+5V
IC5501-59 REC
0.52Vp-p (H-RATE) COLOUR BAR
C5566 1000P
R5571 1K
C5502 0.1
R5603 150
R5604 470
Q5509 2SD2216
R5562 1K
C5502
(B 9)
(B 8)
(B 5)
(B 21)
(B 6)
19
20
21
22
23


REG 3.5V
AN2467
IC 5001
AN3350FHP
Q5006
XN4504
QR5601
UN9212
(VHS H :ON)
2SC4627
Q5513
2SB1218
Q5514
2SD1819
QR5004
XP1213
CMOS LOGIC
CONTROL LOGIC
CHROMA ACC DET
KILLER
BURST ERASE
REC AFC
VCO
VREF
SIDE LOCK
PB APC
CPS/N DET
FSC MAIN
BURST UP DOWN
REC SW
IC5501 41 REC 0.7Vp-p (H-RATE) COLOUR BAR
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.
NOTE: THE MEASU
WITH AIM T
THE MEASU
WITH PAL C
24
25
26
27
28
29

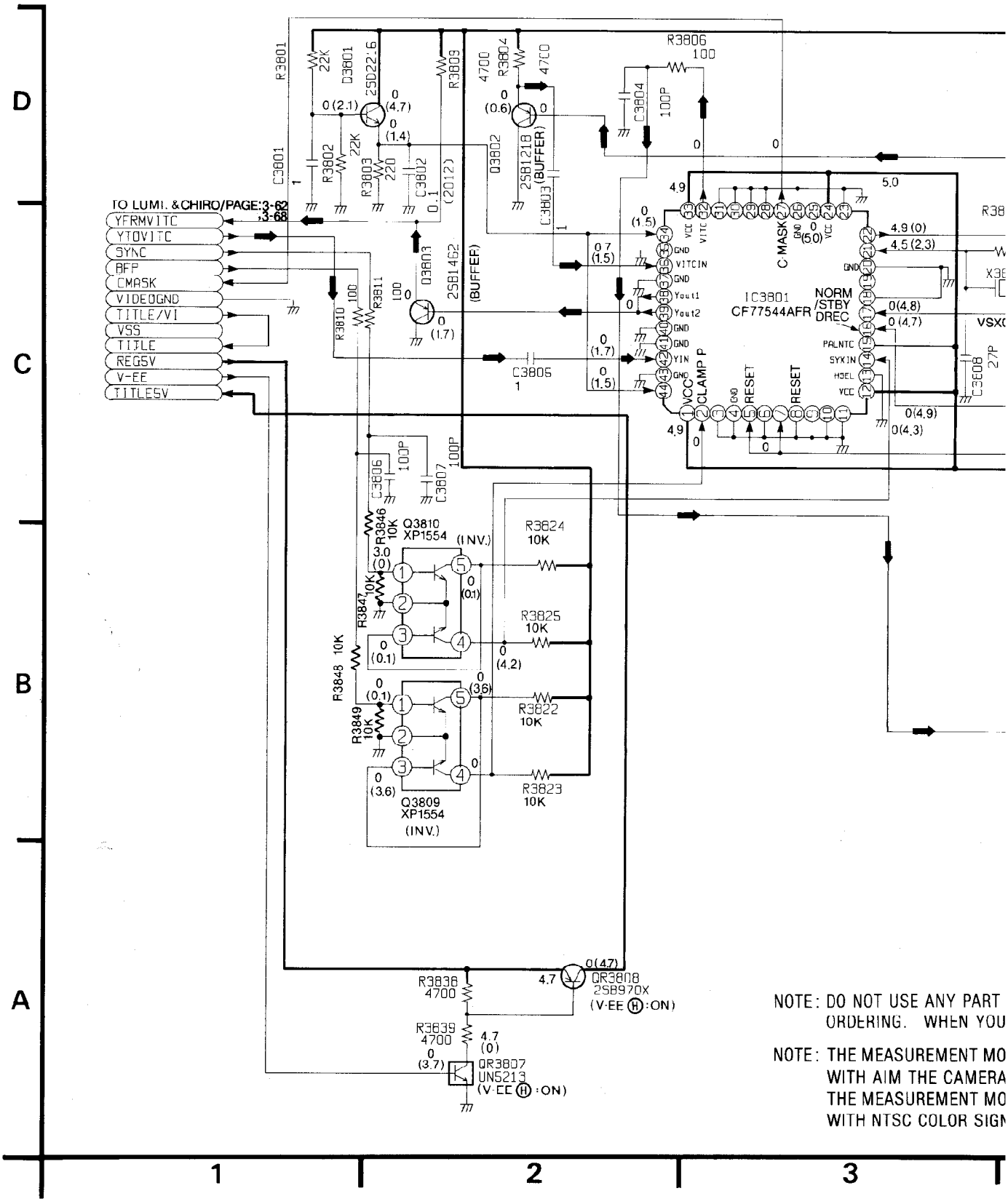


NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH AIM THE CAMERA AT THE COLOUR CHART.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

IAM FOR
ST.

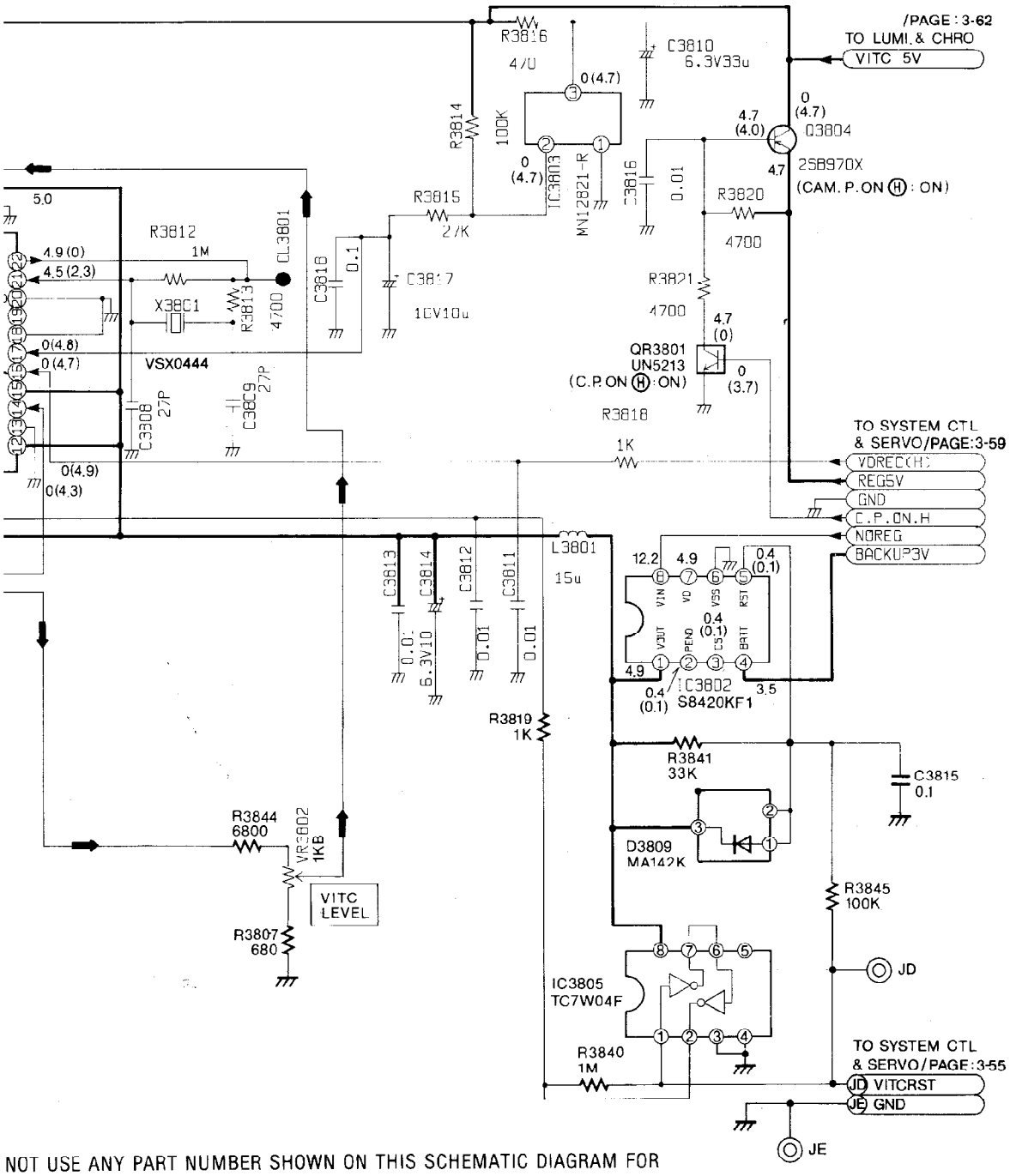

TO SYSTEM CTL & SERVO / Page:3-55
V-EE
CTL OUT
RE 5V
RE
TEST MODE R5001 (Z)
CTL OUT
HSW
NC
V ENV
GND
FM ENV
TO HI-FI AUDIO / Page:3-71
P.B. FM
REC FM
TO TBC / Page:3-95
PS3002
C SYNC
SCR/H
CCD GND
VIDEO GND
H SYNC
HSS
V-ORP
TBC Y OUT
TBC Y IN
TBC C IN
TBC C OUT
V-EE
VIDEO 5V
VIDEO 5V
TO POWER / Page:3-51
CCDGND
TO SYSTEM CTL&SERVO / Page:3-59
SCR/H
FP5001 (A)
TO DD CYLINDER
RE (F)
RE (S)
A GND
A R1 (F)
A R1 (S)
A L1 (F)
A L1 (S)
A GND
A R2 (F)
A R2 (S)
A L2 (F)
A L2 (S)
V GND
V R1 (F)
V R1 (S)
V L1 (F)
V L1 (S)
V GND
V R2 (F)
V R2 (S)
V L2 (F)
V L2 (S)
V GND
IC1883
TA57W393FU
IC1882
M52344FP
TO PROCESS / Page:3-33
P1882
AWTVCC
AWTOUT
GNDANA
NC
TALLY C.B.A.
VEP26181A
Q1881
2SD1030
P1881
IR A
TALLY 5V
EVF 5V
GND
D1881
BR3338S
Q5010
2SB970X
(S-TAB D-REC 5V)
QR5005
UN9213
(FM D-REC H:ON)
Q3018
2SB1462
(BUFFER)
QR5003
UN5212
(FM D-REC H:ON)
TO POWER / Page:3-51
GNDANA
EVF 5V
CCD GND
GND
TO CHARA GEN P3001(D)
EVF 5V
GND
EVF Y
TITLE / VITC
VD REC H
TO EVF P3002 (F)
TO EVF P3002 / Page:3-40 (A-1)
GND
EVF 5V
TALLY 5V
IR A
EVF HD
GND (EVF)
EVF 5V
EVF Y
EVFVD
TO SYSTEM CTL & SERVO / Page:3-55
VD
HD
TALLY 5V
FMDREC
N.R.D.
A-HSW
A-HSW
A ORP
STAB 5V
VD REC H
HA SW
H SW
V-ORP
VSS
TO VITC / Page:3-59
VSS
TITLE / VI
V-EE
TO SYSTEM CTL & SERVO / Page:3-55
NRDBLK
JP1401
EVF 5V
GND
EVF Y
TITLER / VITC
VDREC H
P1402
VJJ0193
EVF 5V
GND
VD
HD
REC LED
EVF OUT
VD REC H
9V
TITLER
NON REC DATA
CHARACTER GENERATOR C.B.A.
VEK3865
35
36
37
38
39
G
F
E
D
C
B
A

3-21. VITC SCHEMATIC DIAGRAM



Back Page:
LUMI/CHRO & HA Section

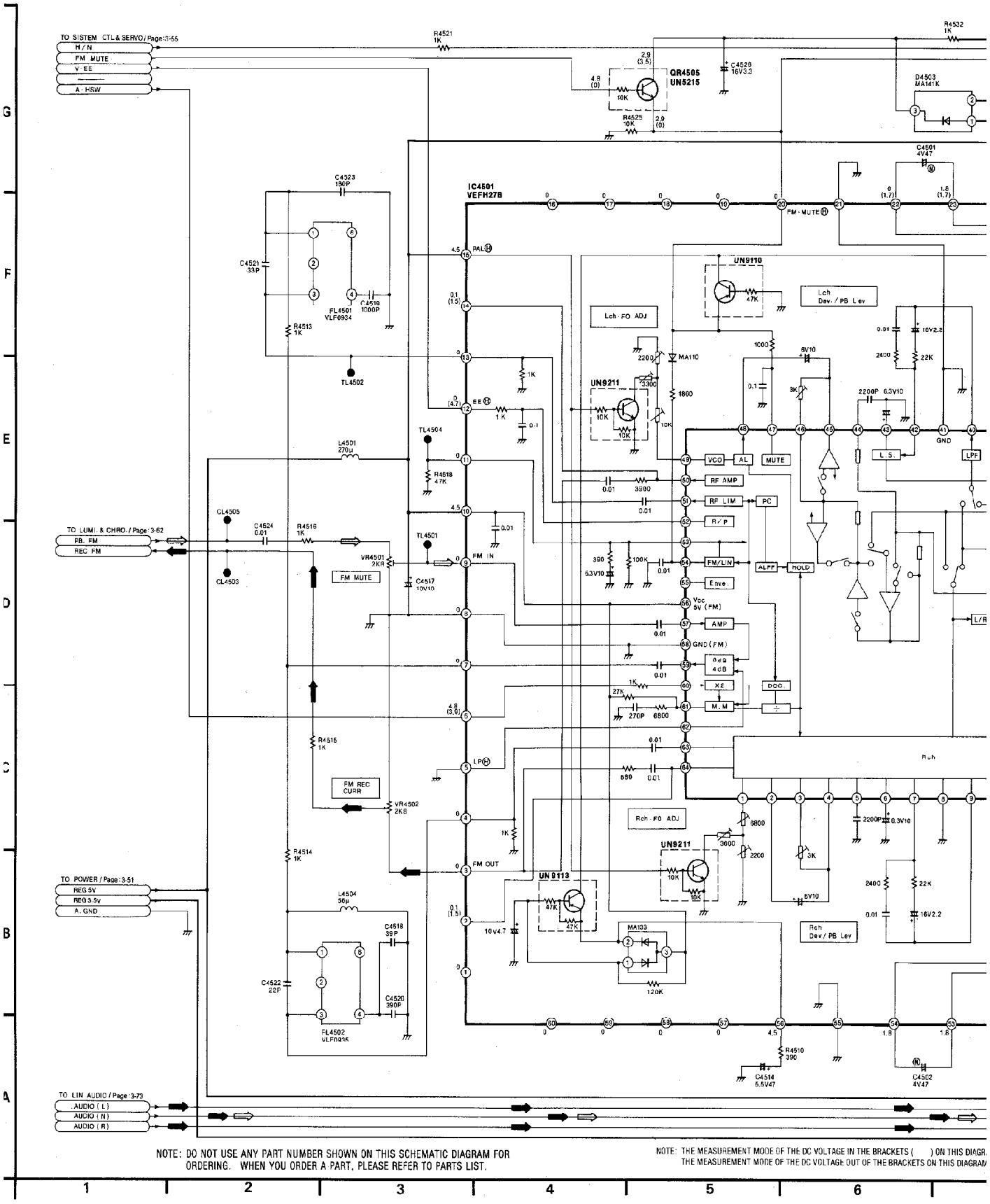
⬅ MAIN SIGNAL PATH IN REC MODE



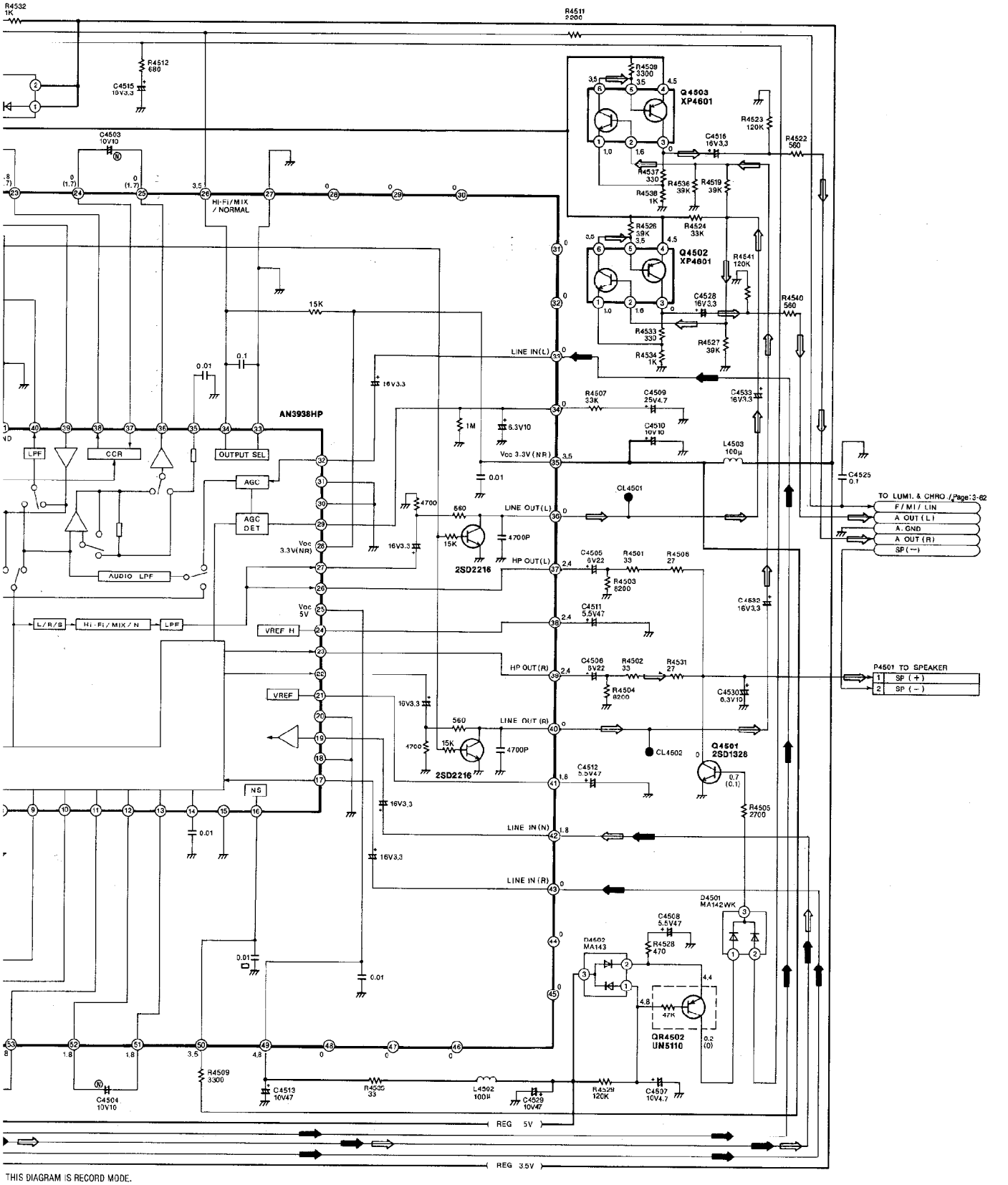
NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR
)ERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

E MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE
TH AIM THE CAMERA AT THE COLOR CHART.
E MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
TH NTSC COLOR SIGNAL.

3-22. Hi-Fi AUDIO SCHEMATIC DIAGRAM



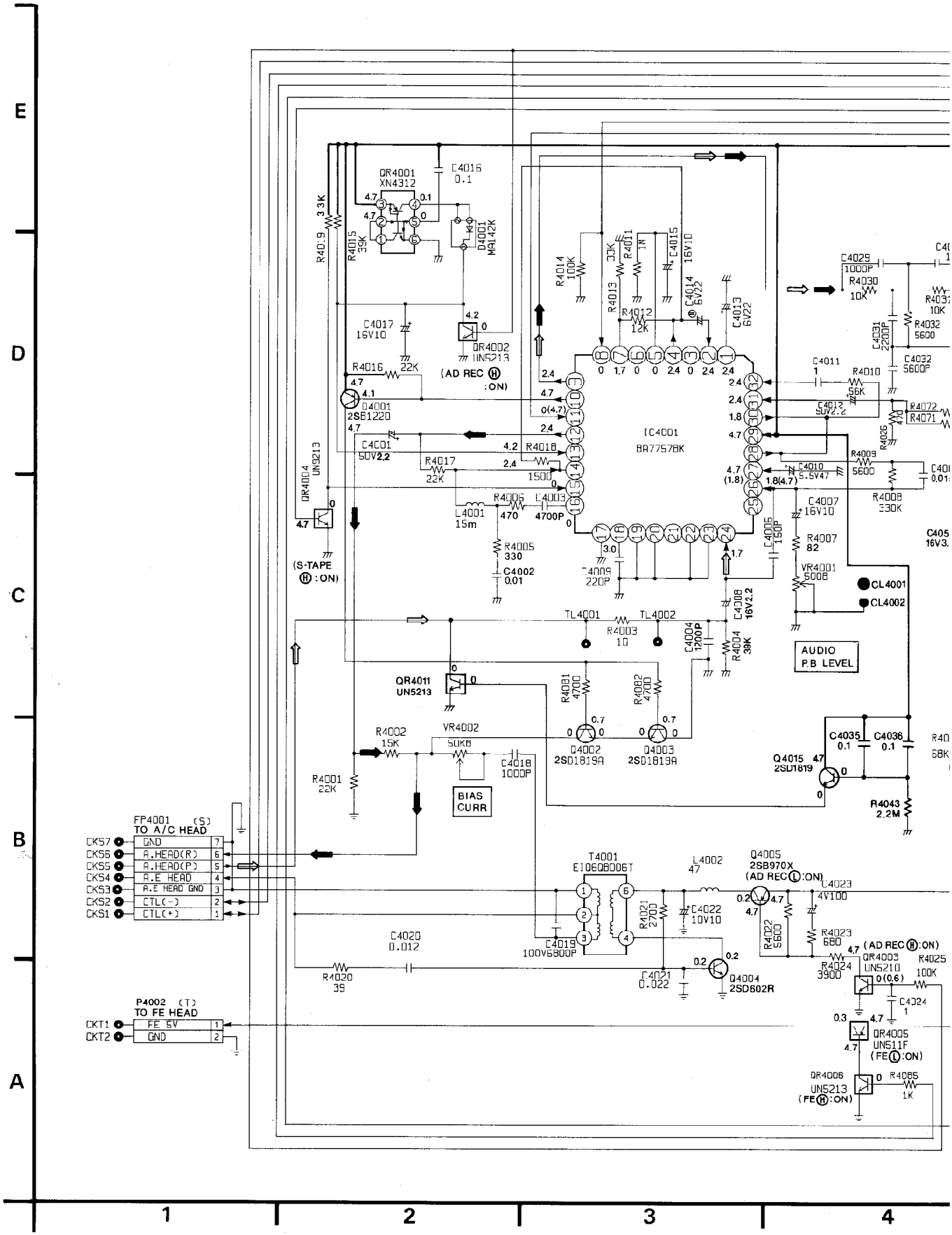
MAIN SIGNAL PATH IN REC MODE ⇦ **MAIN SIGNAL PATH IN PLAYBACK MODE**



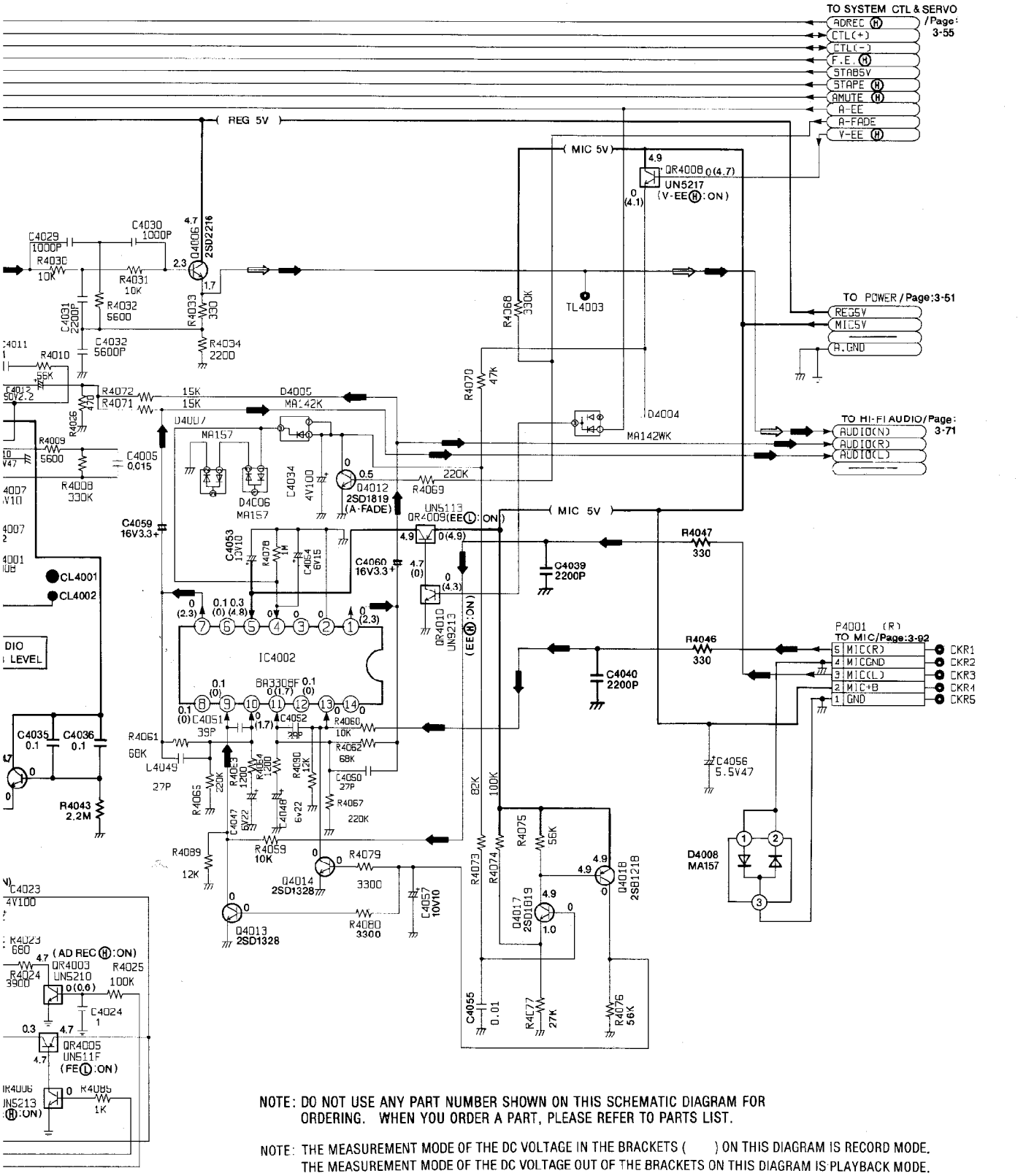
THIS DIAGRAM IS RECORD MODE.
IS DIAGRAM IS PLAYBACK MODE.

7 | 8 | 9 | 10 | 11 | 12

3-23. AUDIO SCHEMATIC DIAGRAM



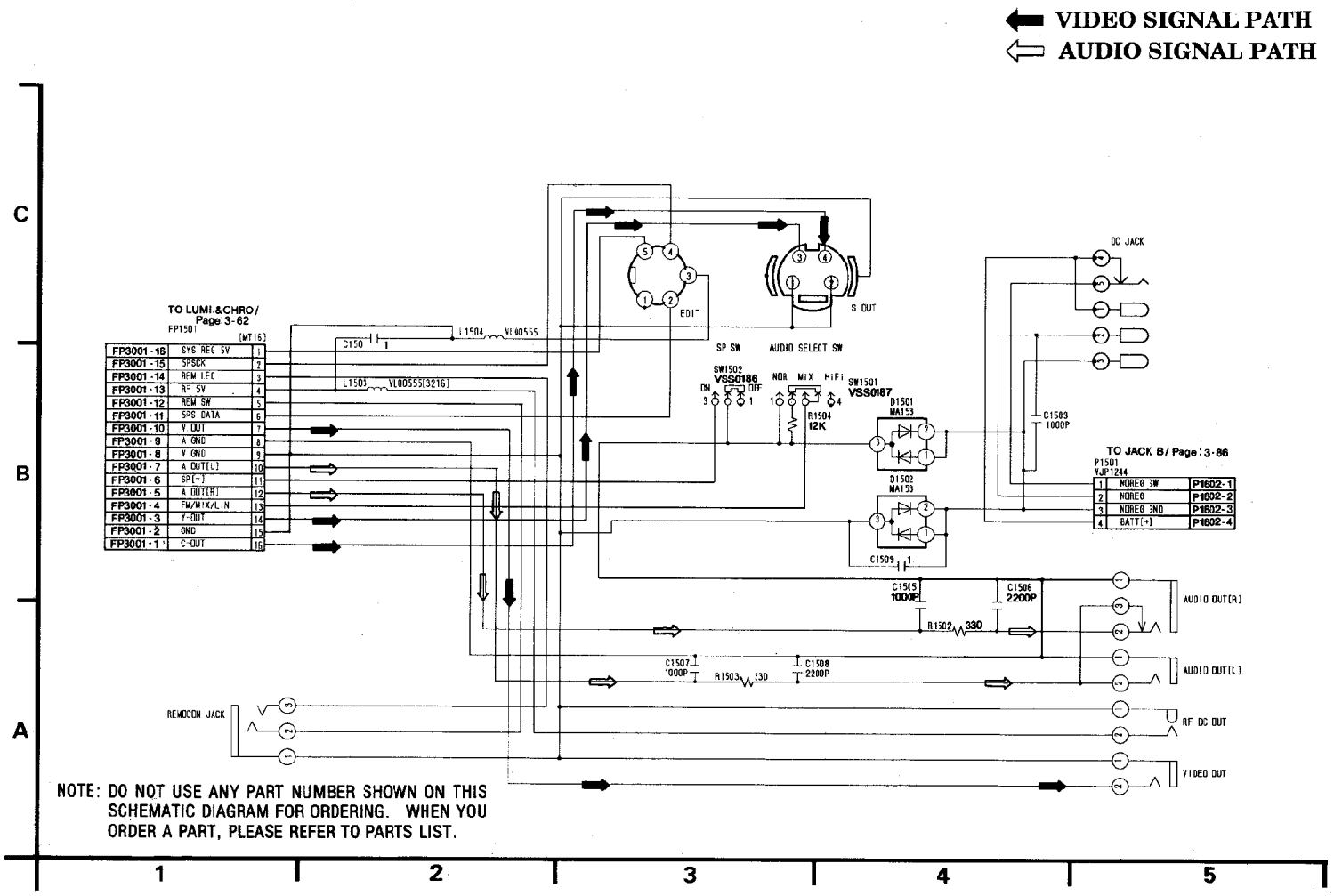
⬅ MAIN SIGNAL PATH IN REC MODE **⇦ MAIN SIGNAL PATH IN PLAYBACK MODE**



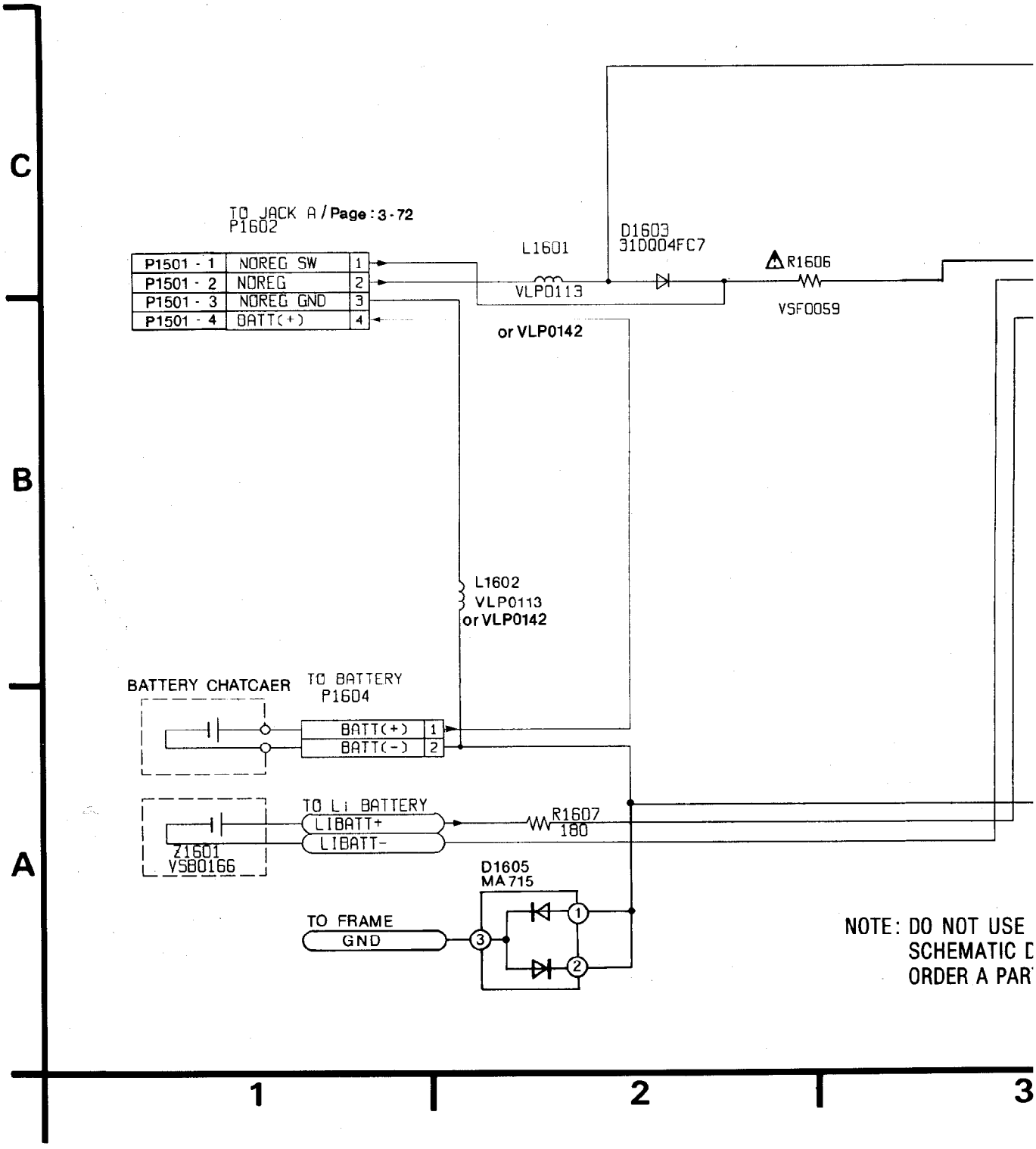
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE.

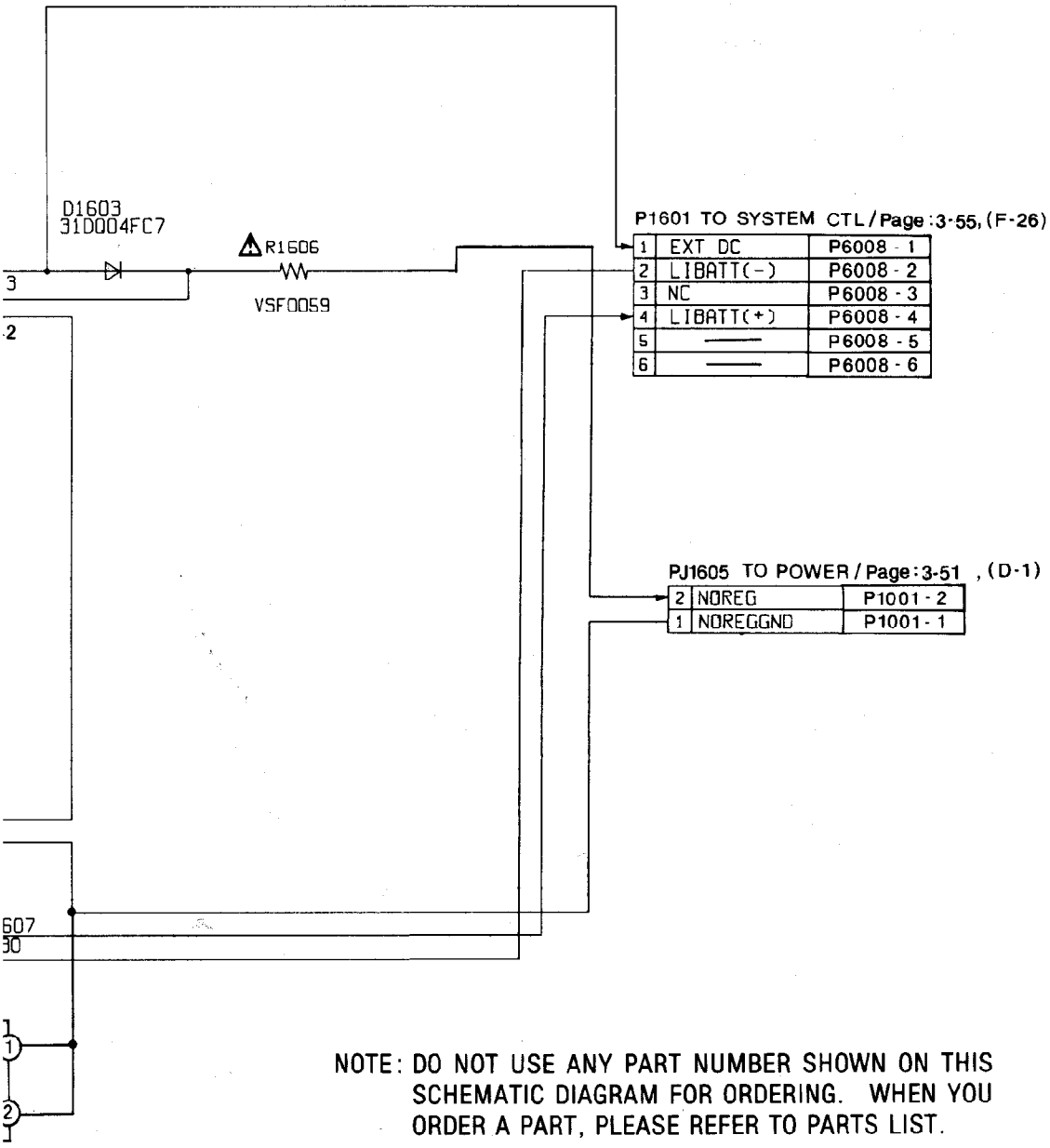
3-26. AV JACK (A) SCHEMATIC DIAGRAM



3-29. AV JACK (B) SCHEMATIC DIAGRAM



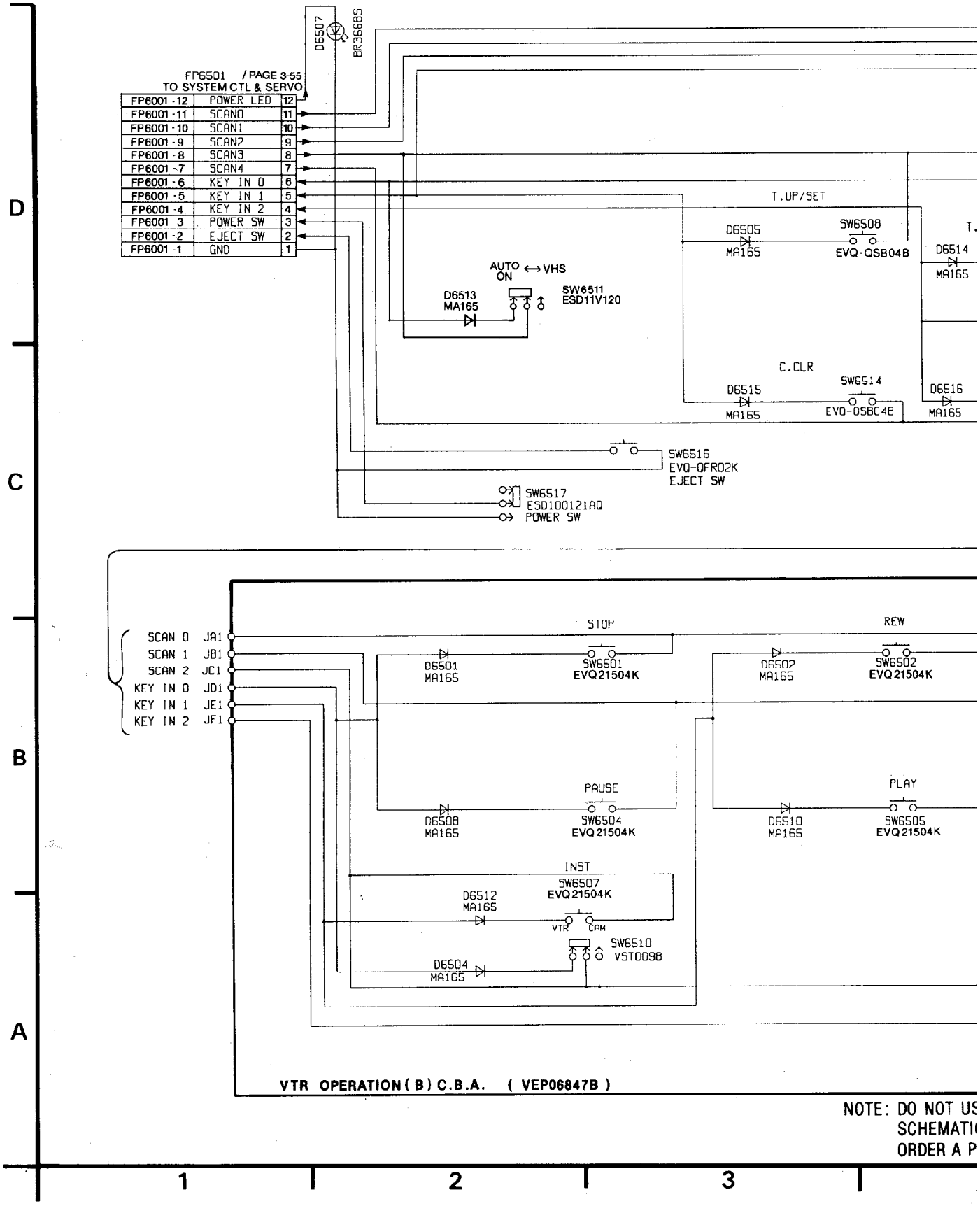
M

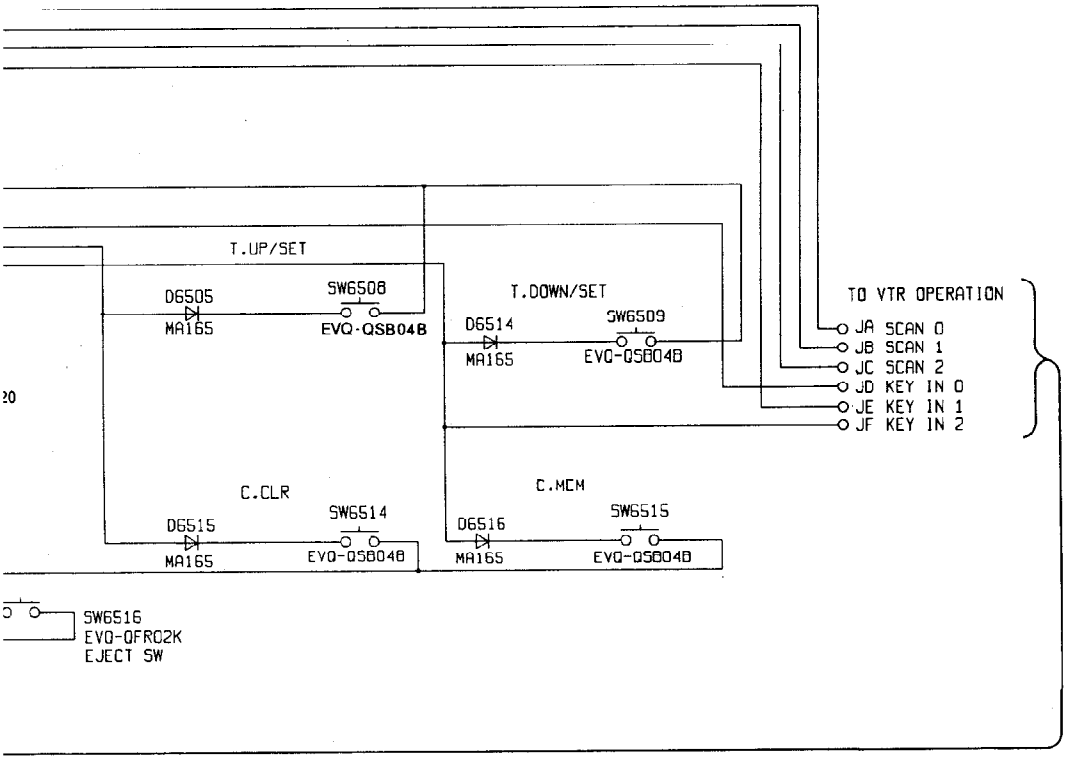


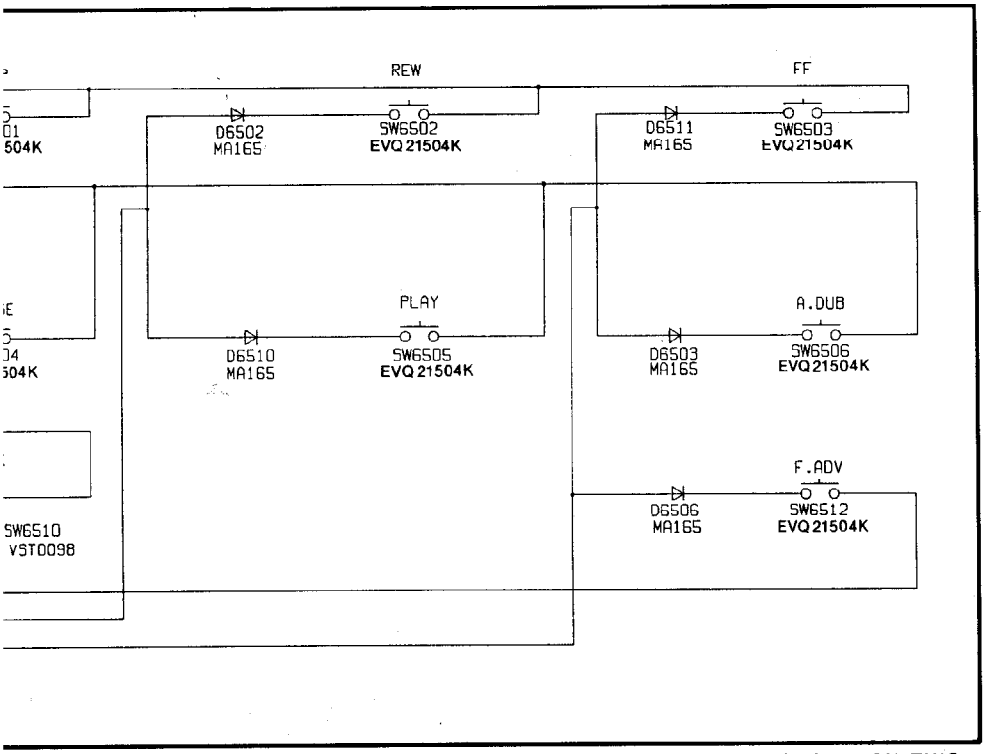
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

2 3 4

3-30. VTR OPERATION SCHEMATIC DIAGRAM



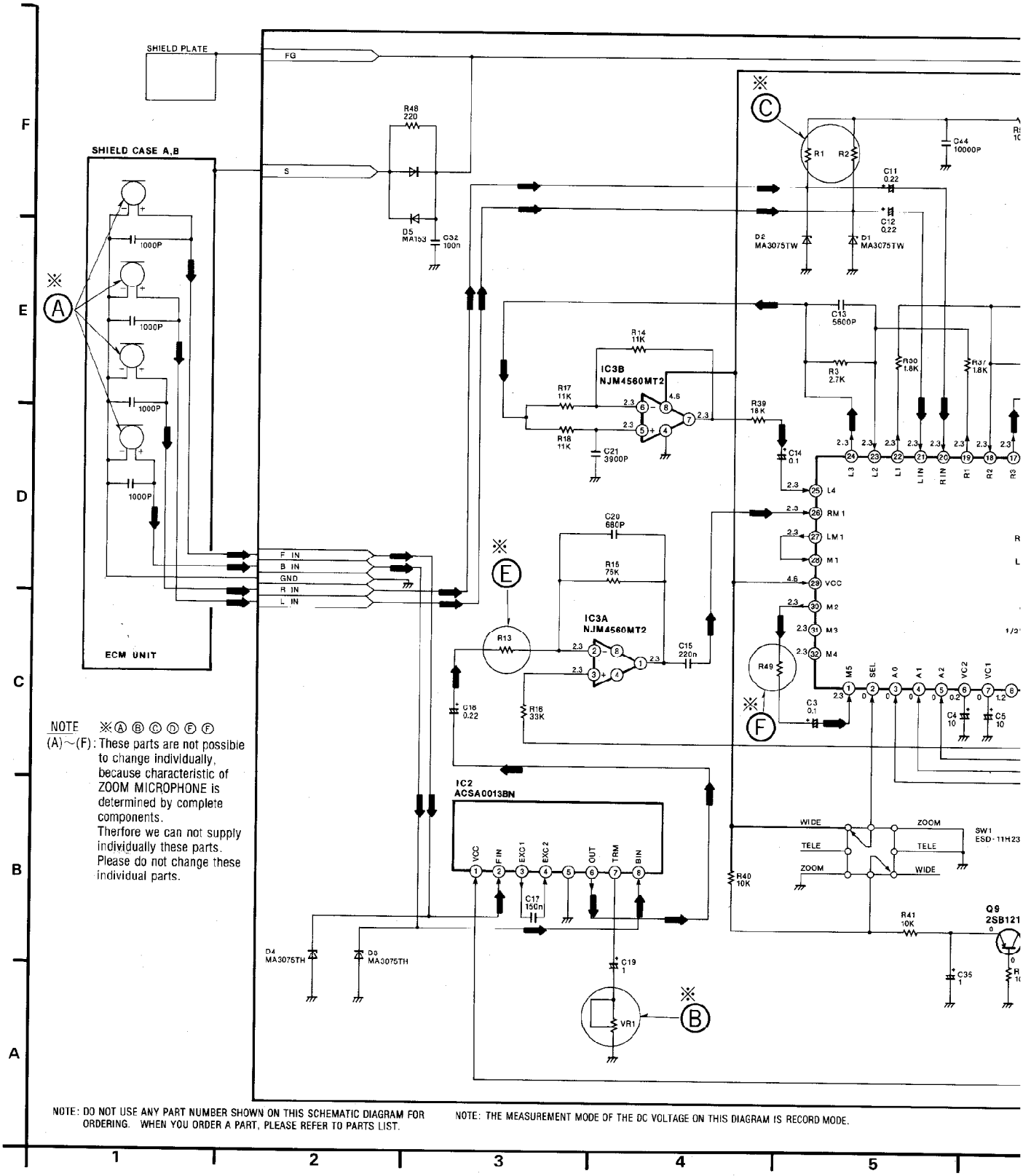




NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3 | 4 | 5

3-32. MIC SCHEMATIC DIAGRAM



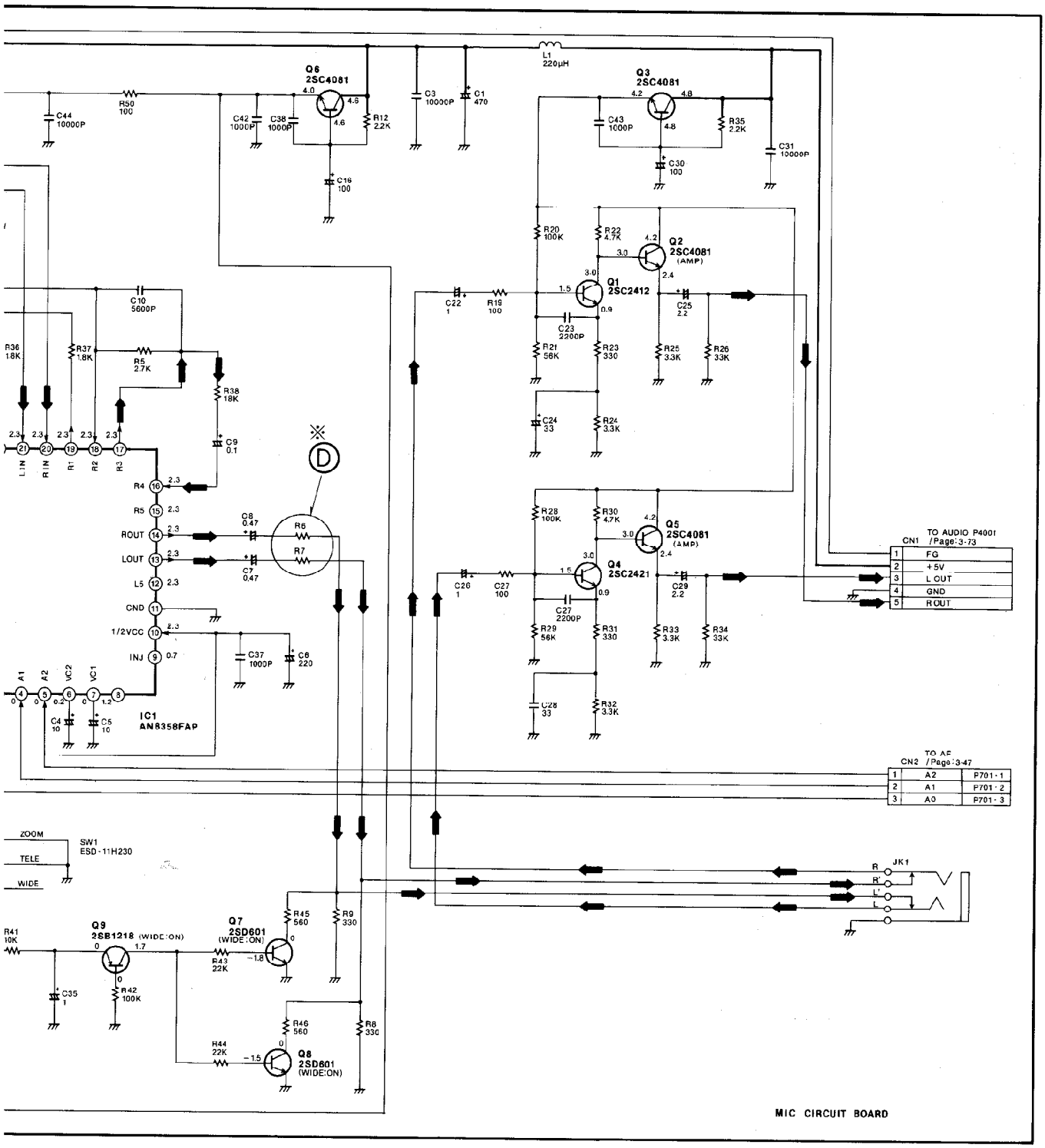
NOTE ※Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ
(A)~(F): These parts are not possible to change individually, because characteristic of ZOOM MICROPHONE is determined by complete components. Therfore we can not supply individually these parts. Please do not change these individual parts.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS RECORD MODE.

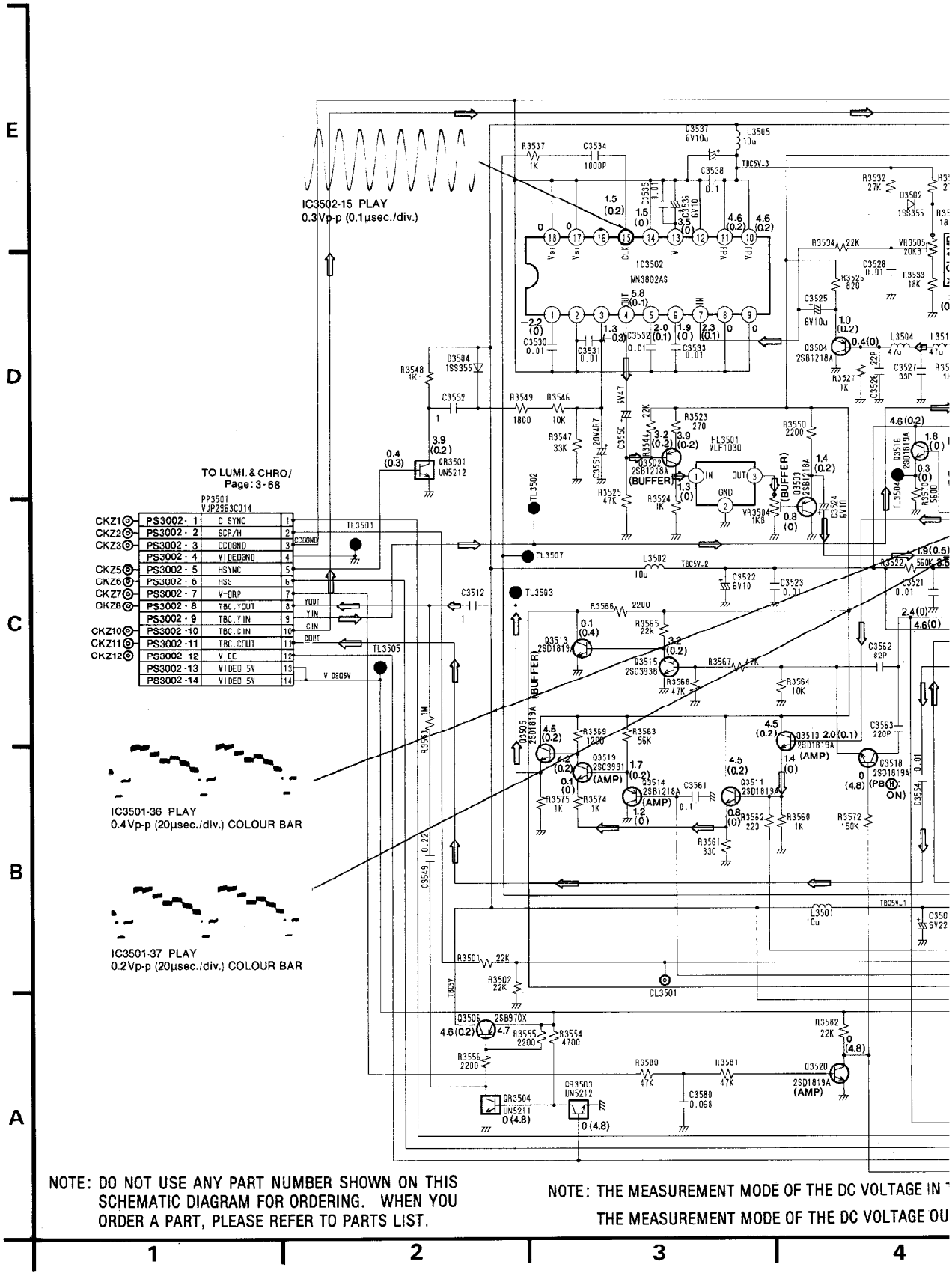
Back Page:
VTR OPERATION Section

⬅ MAIN SIGNAL PATH IN REC MODE

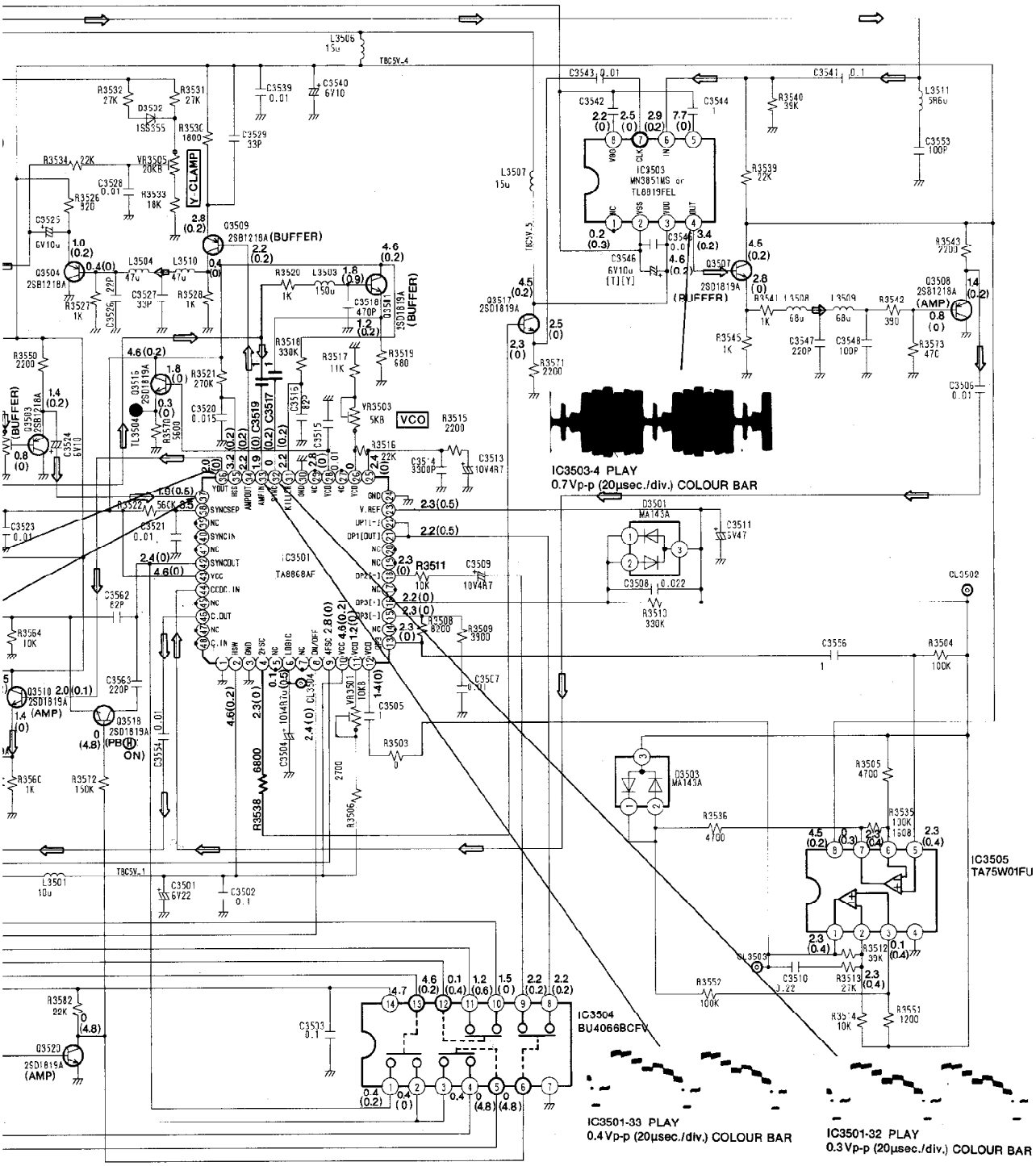


6 7 8 9 10

3-34. TBC SCHEMATIC DIAGRAM



⇦ MAIN SIGNAL PATH IN PLAYBACK MODE



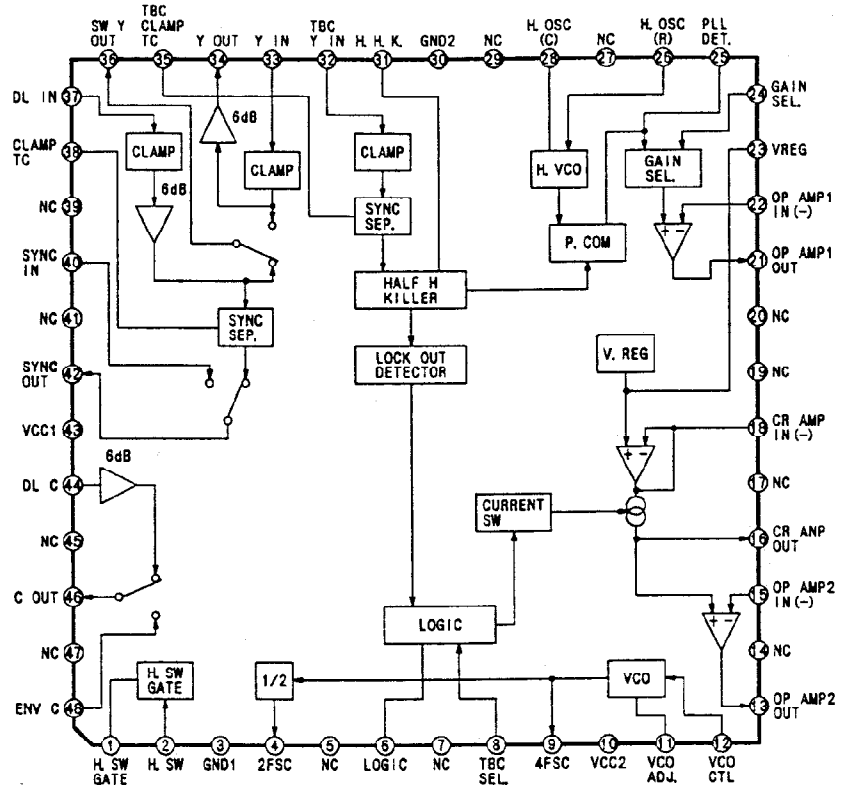
E OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH AIM THE CAMERA AT THE COLOUR CHART.

E OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

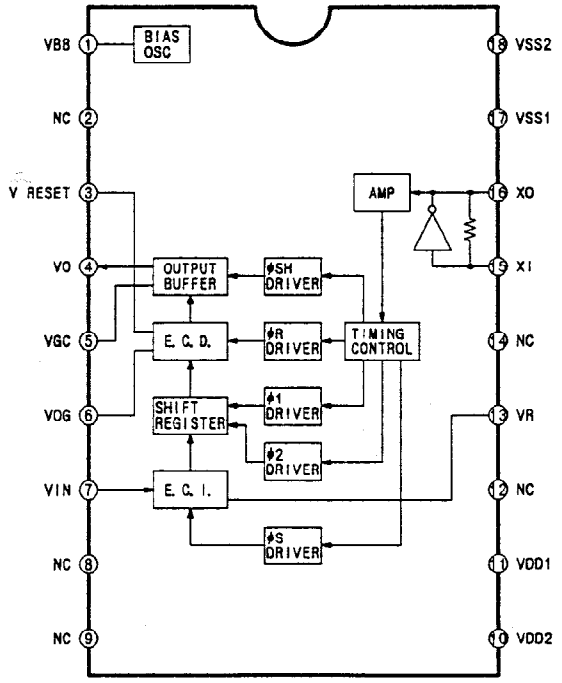
4	5	6	7

IC BLOCK

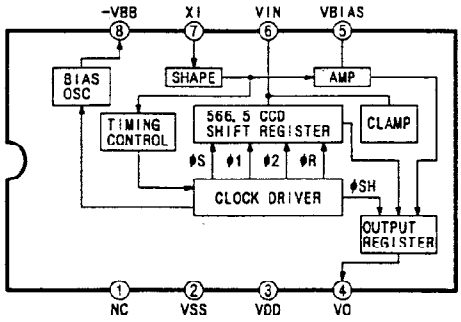
IC3501 (TA8868AF)
(LOCATION: D-4)



IC3502 (MN3802AS)
(LOCATION: E-7)

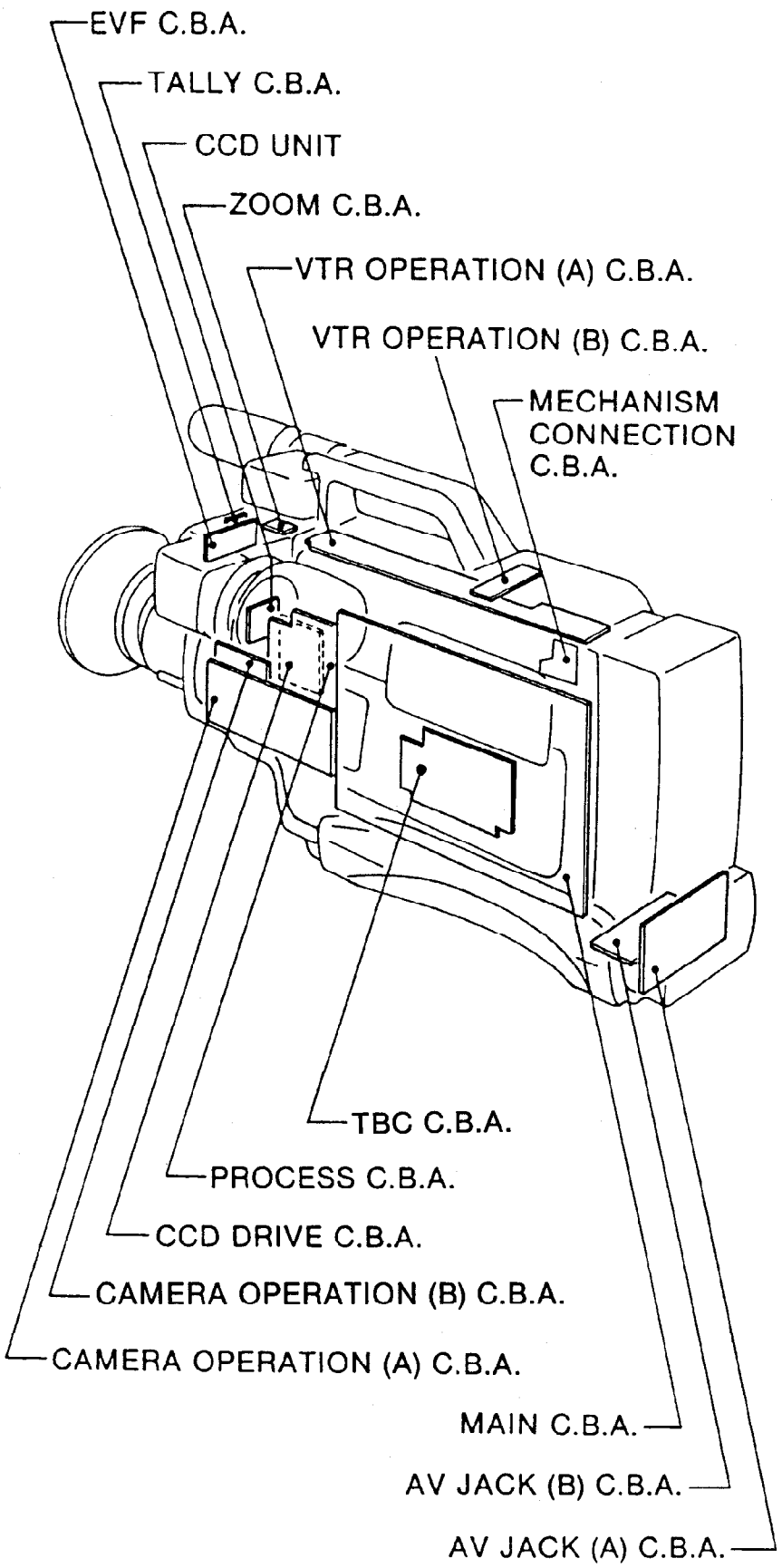


IC3503 (MN3851MS)
(LOCATION: E-5)



Next Page:
TBC C.B.A. Section

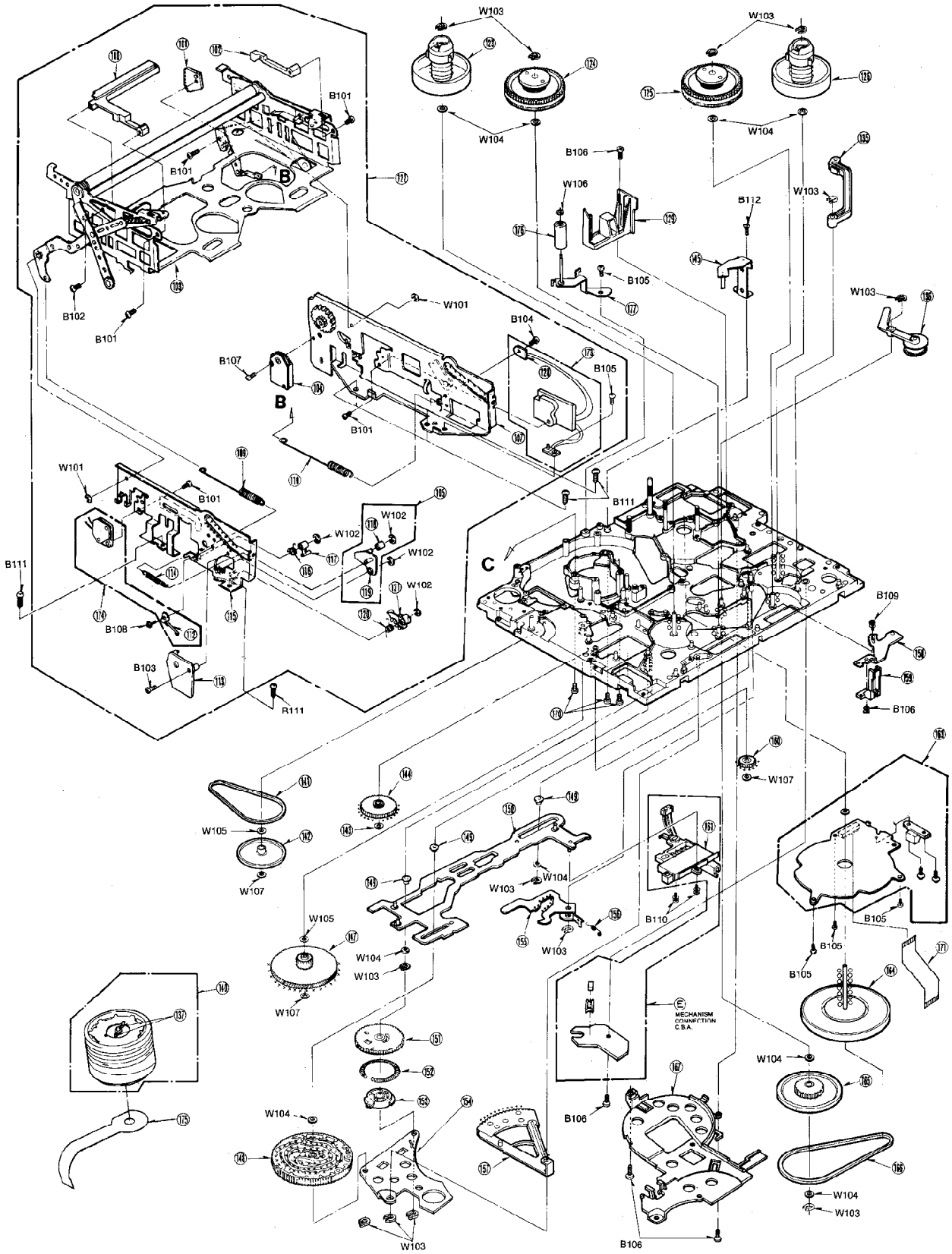
3-36. CIRCUIT BOARD LAYOUT



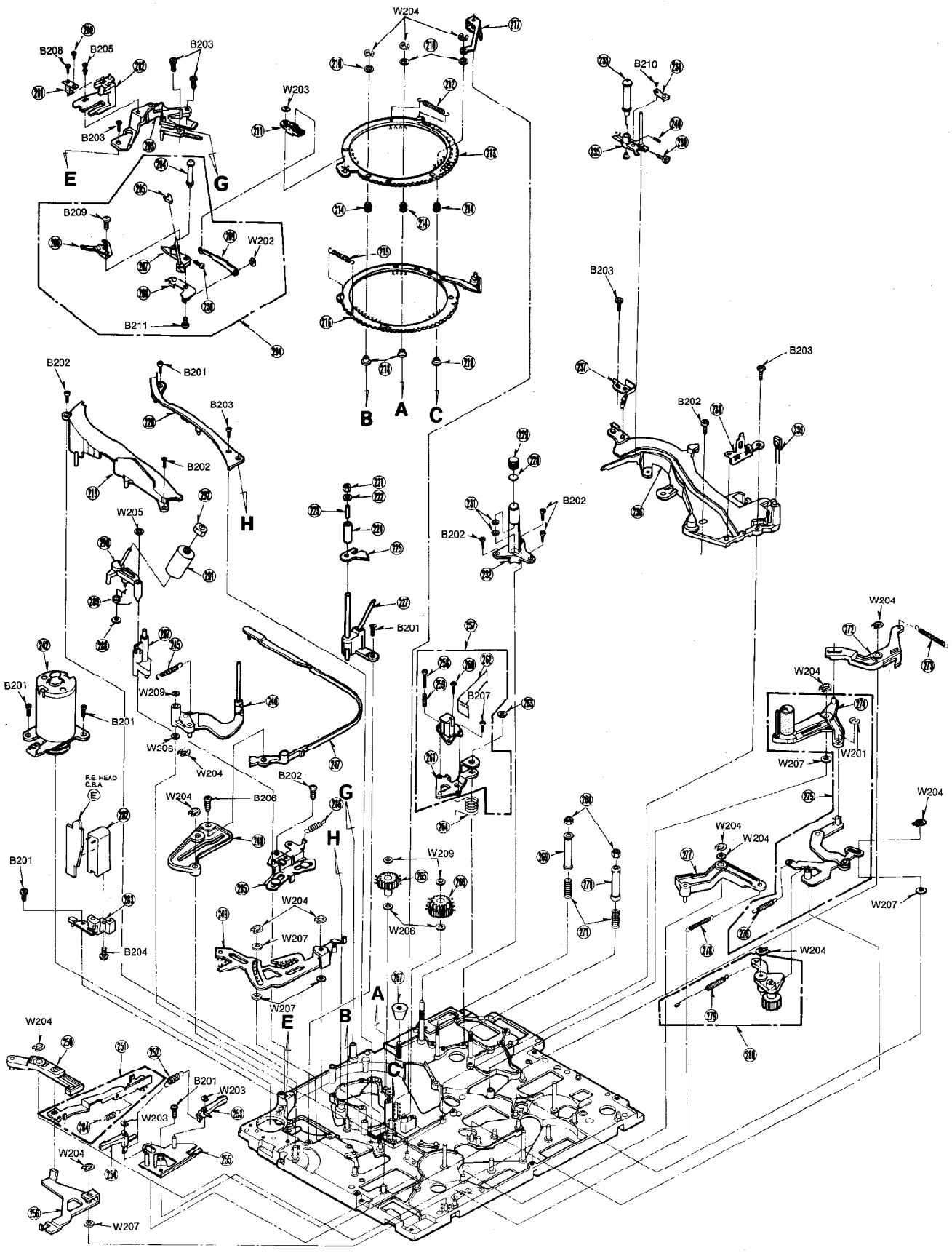
SECTION 4
EXPLODED VIEWS & PARTS LISTS

4-1. EXPLODED VIEWS

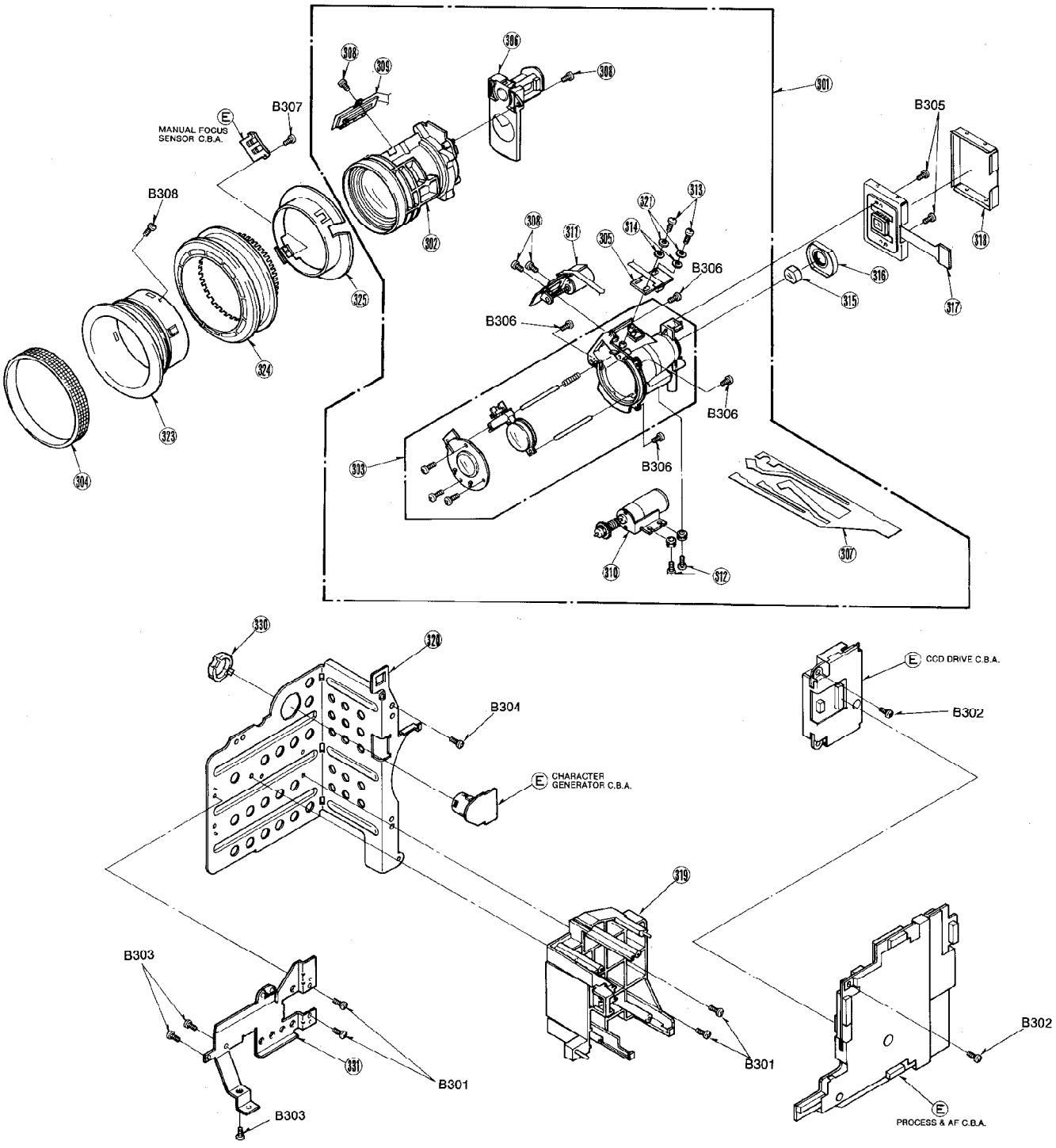
❶ VTR MECHANISM SECTION (1)



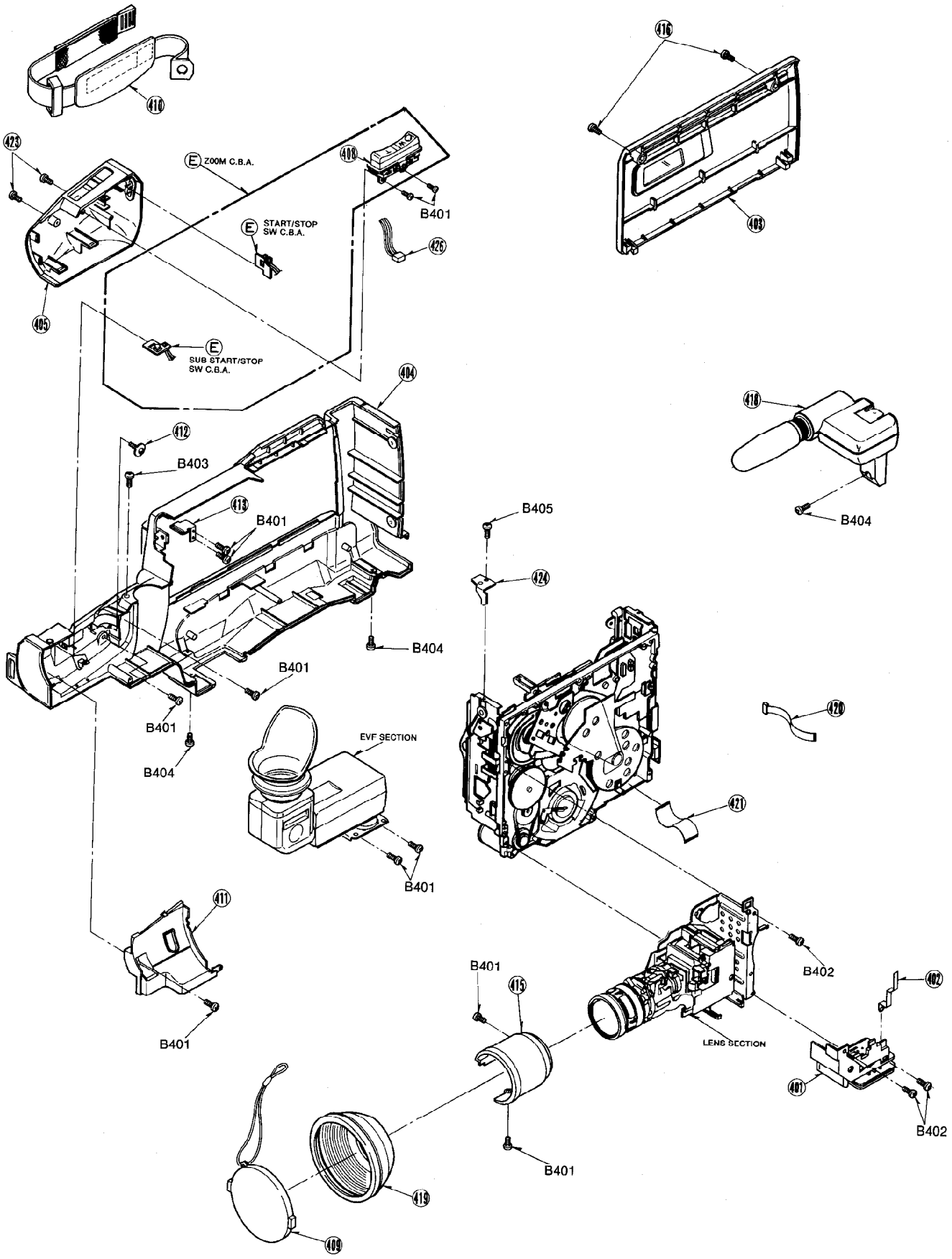
❷ VTR MECHANISM SECTION (2)



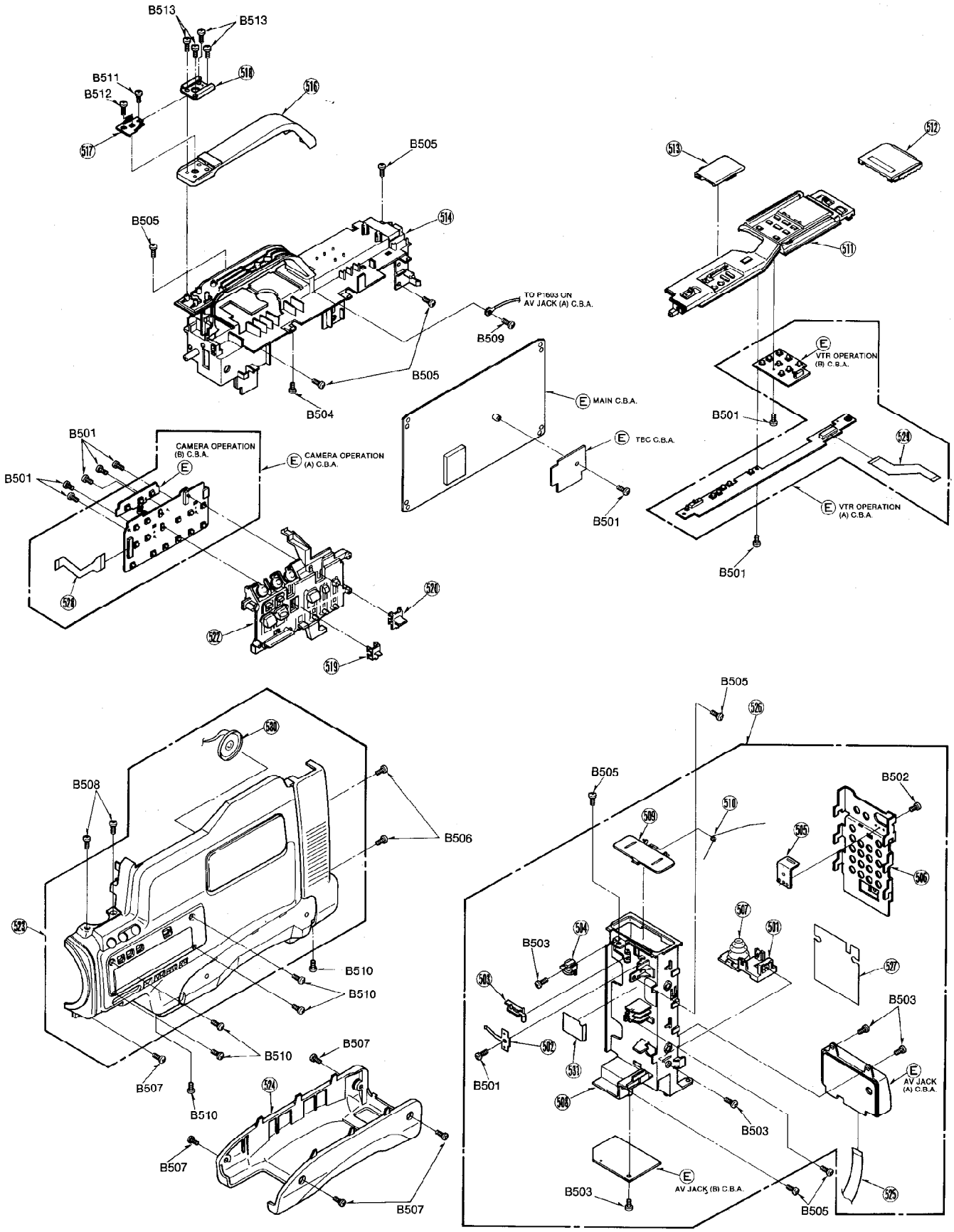
❸ CAMERA LENS SECTION



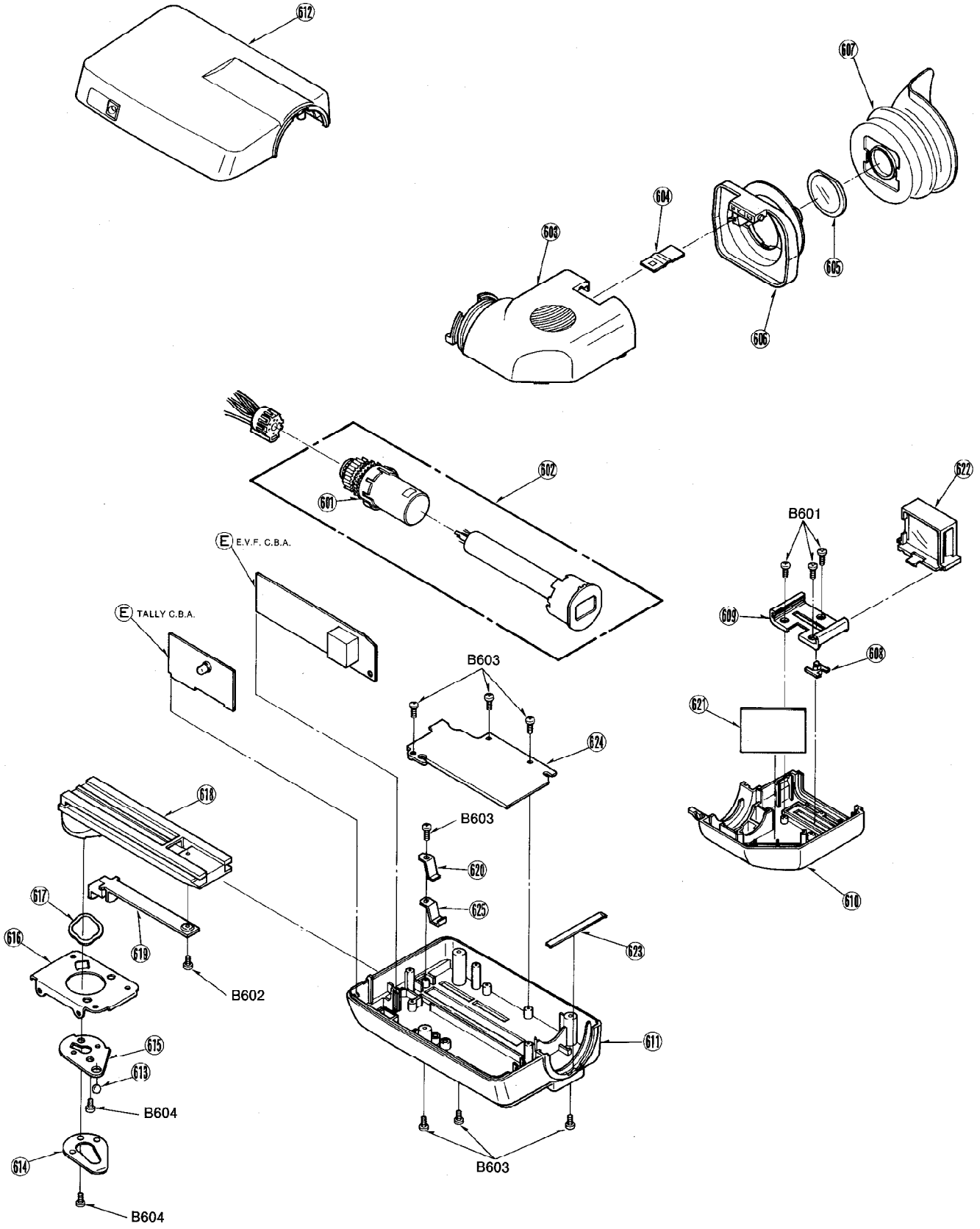
❹ FRAME & CASING PARTS SECTION (1)



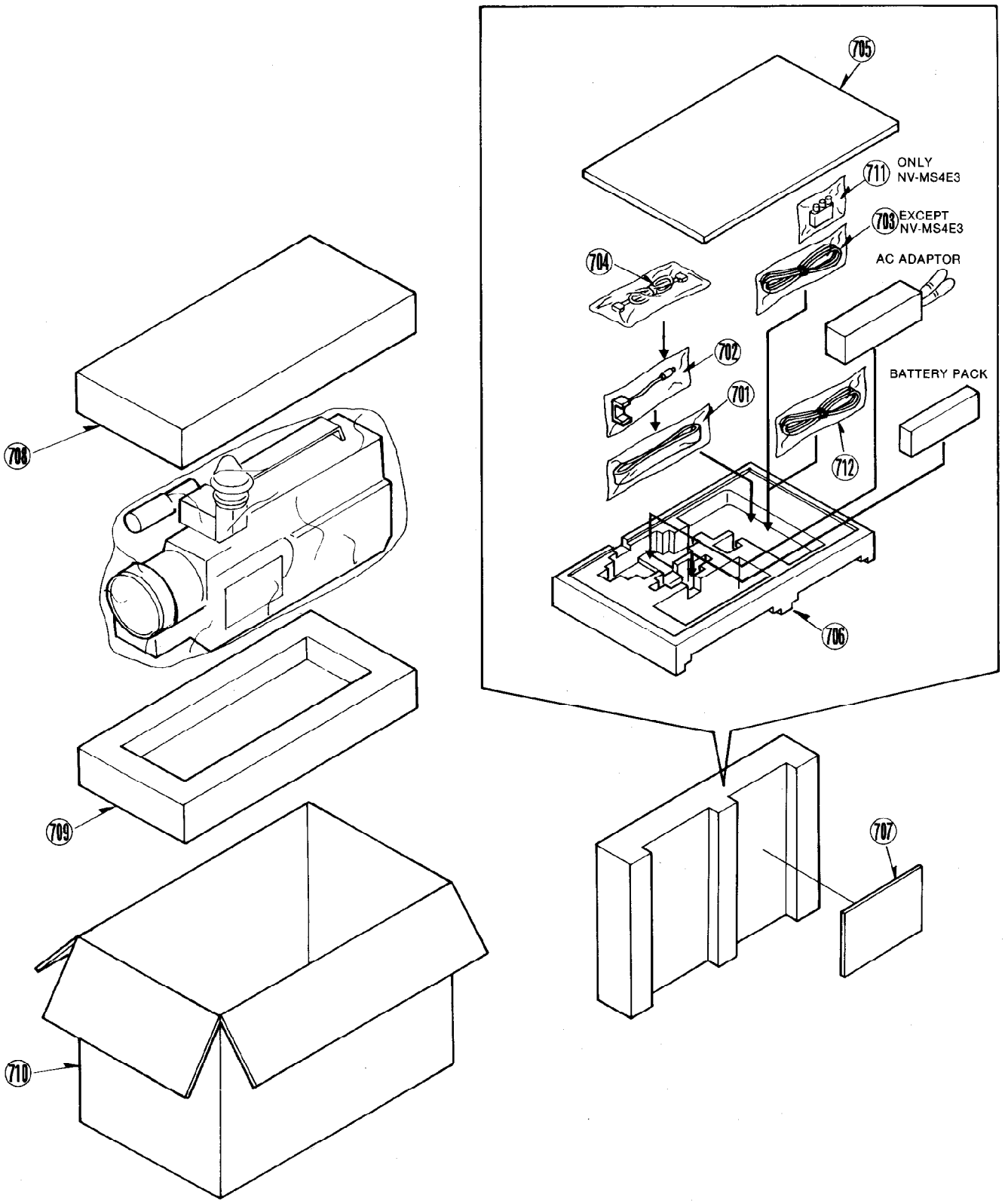
❺ FRAME & CASING PARTS SECTION (2)



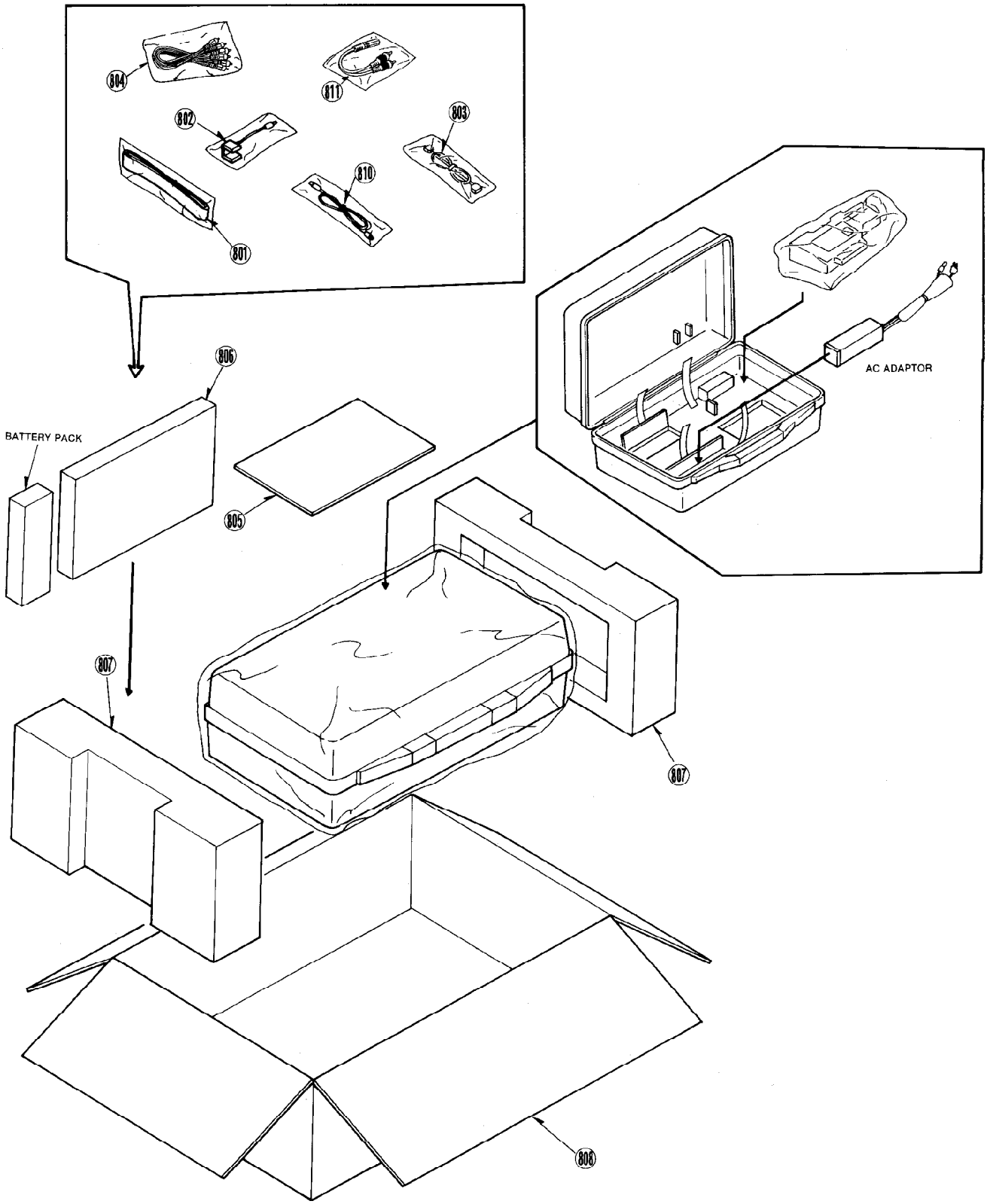
❻ EVF SECTION



❼ PACKING PARTS & ACCESSORIES SECTION
(NV-MS5EG/A, NV-M9500EN)



❽ PACKING PARTS & ACCESSORIES SECTION (NV-MS5B)



4-2. MECHANICAL REPLACEMENT PARTS LIST

Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
100 (1)		VMD0954	CASSETTE GUIDE (L)	1	
101 (1)		VDG0610	MAIN ARM GEAR (A)	1	
102 (1)		VMD0953	CASSETTE GUIDE (R)	1	
103 (1)		VXA4856	CASSETTE HOLDER UNIT	1	
104 (1)		VXP1139	DAMPER UNIT	1	
105 (1)		VXL1984	LOCK LEVER UNIT	1	
107 (1)		VXA3863	STAND (R) UNIT	1	
109 (1)		VMB1329	HOLDER SPRING (L)	1	
110 (1)		VMB1621	HOLDER SPRING (R)	1	
112 (1)		VSH0026	LEAF SW	1	
113 (1)		VMD0952	LEAF SW COVER (O)	1	
114 (1)		VMB1330	LOCK BOARD SPRING	1	
115 (1)		VXA3023	STAND (L) UNIT	1	
116 (1)		VMB1453	LOCK LEVER (B) SPRING	1	
117 (1)		VML1650	LOCK LEVER (D)	1	
118 (1)		VDP1096	LOCK ROLLER (O)	1	
119 (1)		VXL1648	LOCK BOARD UNIT	1	
120 (1)		VMB1331	LOCK LEVER (A) SPRING	1	
121 (1)		VML1649	LOCK LEVER (A)	1	
122 (1)		VXA4832	CASSETTE UP (O) UNIT	1	
123 (1)		VXR0200	SUPPLY REEL TABLE	1	
124 (1)		VXP0900B	SUPPLY CLUTCH UNIT	1	
125 (1)		VXP0901B	TAKE-UP CLUTCH UNIT	1	
126 (1)		VXR0201	TAKE-UP REEL TABLE	1	
128 (1)		VSQ0808	DEW DETECTOR UNIT	1	
129 (1)		VGQ0888	CASSETTE OPENER	1	
135 (1)		VXZ0246	SOFT BRAKE (T) UNIT	1	
136 (1)		VXP0899B	DRIVE GEAR ARM UNIT	1	
137 (1)		VHD0593	CYLINDER UNIT SCREW	2	
140 (1)		VEG1102	CYLINDER UNIT	1	
141 (1)		VDV0167	LOADING BELT	1	
142 (1)		VDG0370	INTERMEDIATE PULLEY GEAR	1	
143 (1)		VMX0653	CUT WASHER	1	
144 (1)		VDG0372	DRIVE GEAR (B)	1	
145 (1)		VXS0123	EARTH BRUSH UNIT	1	
147 (1)		VDG0371	DRIVE GEAR (A)	1	
148 (1)		VDG0202	CAM GEAR	1	
149 (1)		VMX0388	THRUST WASHER	3	
150 (1)		VXL1654	MAIN ROD (K) UNIT	1	
151 (1)		VDG0211	LOADING GEAR (C) (2)	1	
152 (1)		VMB1324	LOADING GEAR (C) SPRING	1	
153 (1)		VDG0210	LOADING GEAR (C) (1)	1	
154 (1)		VMA7228	GUARD PLATE	1	
155 (1)		VML1707	DRIVE ARMKICK LEVER	1	
156 (1)		VMB1388	DRIVE ARMKICK LEVER SPRING	1	
157 (1)		VXP0632	SECTOR GEAR UNIT	1	
158 (1)		VMA6560	SAFETY TAB SW BASE	1	
159 (1)		VSH0023	SAFETY TAB SW	1	
160 (1)		VDG0207	DRIVE GEAR (C)	1	
161 (1)		VSS0193	MODE SW	1	INCLUDED IN MECHA
					CONNECTION C.B.A.
					(VES0609)
163 (1)		VEK5926	STATOR UNIT	1	
164 (1)		VXP1355	ROTOR UNIT	1	
165 (1)		VXP0897	MAIN PULLEY UNIT	1	
166 (1)		VDV0155	CAPSTAN BELT	1	
167 (1)		VMD0935	BELT COVER	1	
170 (1)		VHD0682	CYLINDER SCREW	3	
171 (1)		VWJ0636	CAPSTAN FPC	1	
173 (1)		VEK6098	PHOTO TR (R) U.	1	
174 (1)		VEK6035	PHOTO TR (L) U.	1	
175 (1)		VEP03A93A	RT-FPC	1	
176 (1)		VXP1539	IMPEDANCE ROLLER	1	
177 (1)		VXL2446	IMPEDANCE ARM	1	
B101 (1)		XTN2+5G	SCREW	5	
B102 (1)		XSS2+5	SCREW	1	
B103 (1)		XSN2+6	SCREW	1	
B104 (1)		XTV2+4F	SCREW	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
B105 (1)		XTV2+5F	SCREW	5	
B106 (1)		XTV2+6F	SCREW	5	
B107 (1)		XON16+C8	SCREW	1	
B108 (1)		XYN2+E6FN	SCREW	1	
B109 (1)		XYE2+BF6FZ	SCREW	1	
B110 (1)		XYE2+BF9FZ	SCREW	2	
B111 (1)		XYE26+AF8R	SCREW	4	
B112 (1)		XTV26+6F	SCREW	4	
W101 (1)		XUC2FP	E-RING	1	
W102 (1)		XUC15FP	E-RING	2	
W103 (1)		XUEV3VW	E-RING	4	
W104 (1)		XWGV3D6G	WASHER	13	
W105 (1)		XWGV2D4G	WASHER	9	
W106 (1)		XWGV12Y3G	WASHER	2	
W107 (1)		XWGV0006	WASHER	1	
				3	
200 (2)		VHD0282	P2 ADJUST PLATE SCREW	1	
201 (2)		VMA6542	P2 ADJUST PLATE	1	
202 (2)		VMD0701	SUPPLY POST STOPPER	1	
203 (2)		VMU1156	V STOPPER BASE	1	
204 (2)		VXP0841	SUPPLY ROLLER POST UNIT	1	
205 (2)		VGQ0842	P2 CAP	1	
206 (2)		VMD0759	TAPE PROTECTOR	1	
207 (2)		VXA2221	SUPPLY SHAFT HOLDER(1)UNIT	1	
208 (2)		VXA2256	SUPPLY SHAFT HOLDER ANGLE	1	
			UNIT		
209 (2)		VMM0144	CONNECTION ROD	1	
210 (2)		VMX1282	RING GUIDE SLEEVE UNIT	3	
211 (2)		VXA2231	CONNECTION TIE UNIT	1	
212 (2)		VMB1319	LOADING SPRING	1	
213 (2)		VXA2253	LOADING RING (S) (1) UNIT	1	
214 (2)		VDP1160	RING GUIDE ROLLER	3	
215 (2)		VMB1319	LOADING SPRING	1	
216 (2)		VXA3576	LOADING RING (T) (1) UNIT	1	
217 (2)		VMC0250	PRESSER SPRING	1	
218 (2)		VMX1279	RING GUIDE SLEEVE	3	
219 (2)		VMD1155	LOADING GUIDE (S) (1)	1	
220 (2)		VMD1128	LOADING GUIDE (S) (2)	1	
221 (2)		VMX1088	SUPPLY UPPER LIMITER	1	
222 (2)		VMS2088	P1 POST SLEEVE (D)	1	
223 (2)		VMX1581	P1 COLLAR	1	
224 (2)		VDP1265	P1 ROLLER	1	
225 (2)		VMA6547	P1 LIMITER PLATE	1	
227 (2)		VXA3112	P1 BASE (1) UNIT	1	
228 (2)		VXD0098	THRUST SPACER	1	
229 (2)		VHD0204	THRUST SCREW NUT	1	
230 (2)		VHD0368	ROLLER POST SCREW	1	
231 (2)		VMX0775	DUST SEAL	2	
232 (2)		VXD0108	CAPSTAN HOUSING UNIT	2	
233 (2)		VXP0927	TAKE-UP ROLLER POST UNIT	1	
234 (2)		VMA6546	TAKE-UP SHAFT HOLDER ANGLE	1	
235 (2)		VXA3116	TAKE-UP SHAFT HOLDER (A)	1	
			UNIT		
236 (2)		VMD1165	TAKE-UP LOADING BASE	1	
237 (2)		VMC0352	SHAFT HOLDER PRESSURE	1	
			SPRING		
238 (2)		VMA7226	SHAFT HOLDER PLATE ANGLE	1	
239 (2)		LN59NV	LED	1	
240 (2)		VHD0367	TAKE-UP SHAFT ADJ. SCREW	1	
242 (2)		VEM0431	LOADING MOTOR UNIT	1	<!>
245 (2)		VMB1747	TENSION SPRING	1	
246 (2)		VXL1262	TENSION ARM UNIT	1	
247 (2)		VXZ0245	TENSION BAND UNIT	1	
248 (2)		VML2065B	BAND RELEASE ARM	1	
249 (2)		VXA4828	TENSION KICK LEVER	1	
250 (2)		VML2064B	EJECT LEVER (A)	1	
251 (2)		VXA3020	SUPPORTER UNIT	1	
252 (2)		VMB1405	BRAKE SPRING	1	
253 (2)		VXZ0207B	BRAKE (R) UNIT	1	
254 (2)		VXZ0206B	BRAKE (L) UNIT	1	
255 (2)		VXA4263	BRAKE PLATE (1) UNIT	1	
256 (2)		VML2073	EJECT LEVER (B)	1	
257 (2)		VED0183	A/C HEAD UNIT	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
258 (2)		VHD0275	A/C HEAD ADJUST SCREW	1	
259 (2)		VMB1321	A/C HEAD ADJUST SPRING	1	
260 (2)		VHD0381	A/C HEAD TILT ADJUST SCREW	1	
261 (2)		VXL2256	A/C HEAD ARM UNIT	1	
262 (2)		VWJ0608	A/C HEAD FPC	1	
263 (2)		VHN0077	A/C HEAD ARM NUT	1	
264 (2)		VMB1320	A/C HEAD SPRING	1	
265 (2)		VDG0208	LOADING GEAR (A)	1	
266 (2)		VDG0461	LOADING GEAR (B)	1	
267 (2)		VHN0072	ADJUST NUT	1	
268 (2)		VHN0047	M2 NYLON NUT	2	
269 (2)		VMS2693	P4 POST SLEEVE	1	
270 (2)		VXJ0057	P5 POST SLEEVE	1	
271 (2)		VMB1322	P4,P5 SPRING	2	
272 (2)		VML2067B	PINCH LEVER	1	
273 (2)		VMB2071	PINCH LEVER SPRING	1	
274 (2)		VXL1652	PINCH ROLLER ARM (1) UNIT	1	
275 (2)		VXL1650	PINCH ARM UNIT	1	
276 (2)		VMB1326	PINCH ARM SPRING	1	
277 (2)		VXL1264B	SOFT BRAKE LEVER (S) UNIT	1	
278 (2)		VMB1314	SOFT BRAKE SPRING (S)	1	
279 (2)		VMB1771	REW ARM SPRING	1	
280 (2)		VXL1649B	FF/REW ARM UNIT	1	
282 (2)		VBS0021	FE HEAD	1	
283 (2)		VMD1129	FE HEAD BASE	1	
284 (2)		VMB1447	SUPPORTER SPRING	1	
285 (2)		VXA3579	SLIDE BASE (O) UNIT	1	
286 (2)		VMB1965	SLIDE SPRING	1	
287 (2)		VML2285	IMPEDANCE LEVER	1	
288 (2)		VHN0109	PUSH NUT	1	
289 (2)		VMB1964	IMPEDANCE DRIVE SPRING	1	
290 (2)		VXL1879	IMPEDANCE ARM (1) UNIT	1	
291 (2)		VDP1285	IMPEDANCE ROLLER	1	
292 (2)		VMX1088	SUPPLY UPPER LIMITER	1	
294 (2)		VXA2220	SUPPLY SHAFT HOLDER UNIT	1	
B201 (2)		XTV2+5F	SCREW	6	
B202 (2)		XTV2+6F	SCREW	7	
B203 (2)		XTV2+8F	SCREW	6	
B204 (2)		XYN2+C5	SCREW	1	
B205 (2)		XYN2+F5	SCREW	1	
B206 (2)		XYN2+F4FZ	SCREW	1	
B207 (2)		XSN2+D6FZ	SCREW	1	
B208 (2)		XQN16+A25	SCREW	1	
B209 (2)		XQN16+CF3	SCREW	1	
B210 (2)		XQN16+A3	SCREW	1	
B211 (2)		XQN2+A2	SCREW	1	
W201 (2)		XUC2FP	E-RING	1	
W202 (2)		XUC12FP	E-RING	1	
W203 (2)		XUC15FP	E-RING	3	
W204 (2)		XUEV3VW	E-RING	14	
W205 (2)		XWGV2Y4G	WASHER	1	
W206 (2)		XWGV2D4G	WASHER	3	
W207 (2)		XWGV3D6G	WASHER	5	
W208 (2)		XWGV3D9G	WASHER	1	
W209 (2)		XWGV0006	WASHER	3	
401 (4)		VMD2007	TRIPOD FRAME	1	
402 (4)		VSC3732	TRIPOD SHIELD PLATE	1	
403 (4)		VYP6169	CASSETTE COVER U.	1	NV-MS5EG/B/A
403 (4)		VYP6170	CASSETTE COVER U.	1	NV-M950EN
404 (4)		VYK6880	SIDE CASE (L)(1) U.	1	
405 (4)		VYK4795	GRIP CASE (1) U.	1	
408 (4)		VXU1138	ZOOM BUTTON (1) U.	1	
409 (4)		VYF1893	HOOD CAP U.	1	
410 (4)		VYC0770	GRIP BELT U.	1	
411 (4)		VKM4075	FRONT CASE	1	
412 (4)		VHD0386	GRIP BELT SCREW	1	
413 (4)		VMP3822	SHOLDER ANGLE (F)	1	
415 (4)		VKM4352	LENS COVER	1	
416 (4)		VHD0371	SCREW	2	
418 (4)		VEK5863	MIC U.	1	
419 (4)		VDW0191	LENS HOOD	1	
420 (4)		VWJ0789	CYLINDER FLEX. CABLE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
421 (4)		VWJ0636	CAPSTAN FLEX. CABLE	1	
423 (4)		VHD0771	SCREW	2	
424 (4)		VMP3688	FRAME SET. ANGLE	1	
426 (4)		VEE7782	ZOOM FLEX	1	
B401 (4)		XTB26+6JFZ	SCREW	11	
B402 (4)		XTB26+8FR	SCREW	3	
B403 (4)		XTN26+6FFZ	SCREW	1	
B404 (4)		XTN26+6GFZ	SCREW	3	
B405 (4)		XTV26+8FR	SCREW	1	
501 (5)		VGQ1129	BATTERY CATCHER	1	
502 (5)		VMC0876	BATTERY LOCK ANGLE	1	
503 (5)		VGQ2849	BATTERY LOCK	1	
504 (5)		VGQ2850	INTERMEDIATE LEVER	1	
505 (5)		VMP3689	SHOLDER ANGLE	1	
506 (5)		VMP3692	BATTERY CASE FIX. ANGLE	1	
507 (5)		VMB2524	BATTERY PUSHING SPRING	1	
508 (5)		VKM3072	BATTERY CASE U.	1	
509 (5)		VKF1876	BATTERY DOOR	1	
510 (5)		VMC0237	DOOR SPRING	1	
511 (5)		VXU1428	TOP OPERATION PANEL (1) U.	1	
512 (5)		VKF1935	CURSOR	1	
513 (5)		VKF1878	RESET MEMORY DOOR	1	
514 (5)		VMD2006	TOP FRAME	1	
516 (5)		VKM3071	HANDLE UPPER CASE	1	
517 (5)		VMC0726	SHOE SPRING	1	
518 (5)		VMP2407	SHOE	1	
519 (5)		VGU5898	SLIDE KNOB (A)	1	
520 (5)		VGU5908	SLIDE KNOB (B)	1	
522 (5)		VGP3162	CAMERA OPERATION PANEL	1	
523 (5)		VYK5881	SIDE CASE (R) U.	1	NV-MS5EG/B/A
523 (5)		VYK5887	SIDE CASE (R) U.	1	NV-M950EN
524 (5)		VMT0452	SHOLDER PAD	1	
525 (5)		VWJ0609	AV JACK-MAIN CABLE	1	
526 (5)		VYK5882	BATTERY CASE U.	1	
527 (5)		VMZ2063	JACK BARRIER	1	
528 (5)		VWJ0638	CAMERA OPE.-PROCESS FLEX.	1	
529 (5)		VWJ0610	VIR OPE.-BIN FLEX.	1	
530 (5)		VEK5102	EAR SPEAKER U.	1	
531 (5)		VMZ2090	BATT. BARRIER	1	
B501 (5)		XTB2+6J	SCREW	8	
B502 (5)		XTB26+4F	SCREW	1	
B503 (5)		XTB26+6J	SCREW	5	
B504 (5)		XTB26+6JFZ	SCREW	1	
B505 (5)		XTB26+8FR	SCREW	9	
B506 (5)		XTB26+8FFZ	SCREW	2	
B507 (5)		XTB26+10GFZ	SCREW	5	
B508 (5)		XTN26+6FFZ	SCREW	2	
B509 (5)		XSN26+W10FN	SCREW	1	
B510 (5)		XTN26+6GFZ	SCREW	6	
B511 (5)		XQN2+A14FZ	SCREW	1	
B512 (5)		XQN26+AQ12FZ	SCREW	1	
B513 (5)		XQS2+AJ8FZ	SCREW	4	
601 (6)		ELY07V570F	DEFLECTION YOKE	1	
602 (6)		VEK5002	CRT U.	1	
603 (6)		VYK4496	FINDER CASE (UPPER)	1	
604 (6)		VMC0316	EYE CAP HOLDER SPRING	1	
605 (6)		VDL0140	LENS (2)	1	
606 (6)		VKF1996	EYE CAP HOLDER	1	
607 (6)		VMG0716	EYE CAP	1	
608 (6)		VGU3895	EYESIGHT ADJ. LEVER	1	
609 (6)		VKF1278	LENS HOLDER GUIDE	1	
610 (6)		VKM3077	FINDER CASE (LOWER)	1	
611 (6)		VKM4334	EVF MAIN CASE LOWER U.	1	
612 (6)		VYK6877	EVF MAIN CASE UPPER U.	1	
613 (6)		VMP1358	EVF BEARING	1	
614 (6)		VMC0902	EVF LOCK SPRING	1	
615 (6)		VMP3823	EVF ROTARY PLATE	1	
616 (6)		VMP3690	EVF MOUNT ANGLE	1	
617 (6)		VMX2172	WAVING WASHER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
618 (6)		VGQ2914	EVF ROTATION BASE	1	
619 (6)		VGQ2967	ROTARY BASE COVER	1	
620 (6)		VMC0914	ROTARY BASE SPRING	1	
621 (6)		VDL0349	MIRROR	1	
622 (6)		VYQ0082	LENS HOLDER U.	1	
623 (6)		VMC0890	SPRING PALTE	1	
624 (6)		VGQ2846	WIRE COVER	1	
625 (6)		VGQ3069	EVF SLIDER	1	
B601 (6)		XTS2+4GFZ	SCREW	3	
B602 (6)		XTB2+4JFZ	SCREW	1	
B603 (6)		XTB2+6JFZ	SCREW	7	
B604 (6)		XTB26+8J	SCREW	2	
301 (3)		VXW0189	LENS U.	1	
302 (3)		VXQ0402	MAIN LENS U.	1	
303 (3)		VXP1507	MASTER LENS U.	1	
304 (3)		VDW0309	FOCUS RING (2)	1	
305 (3)		VEK7256	FOCUS ENCODER U.	1	
306 (3)		VXL2305	IRIS U.	1	
307 (3)		VWJ0696	LENS FLEXIBLE CABLE	1	
308 (3)		VHD0779	SCREW	5	
309 (3)		EVAJHBUA3B14	ZOOM ENCODER U.	1	
310 (3)		VEM0602	ZOOM MOTOR U.	1	
311 (3)		VEM0466	FOCUS MOTOR U.	1	
312 (3)		VHD0853	SCREW	2	
313 (3)		VHD0781	SCREW	2	
314 (3)		VMX2231	WASHER	2	
315 (3)		VDL0322	CRYSTAL FILTER	1	
316 (3)		VMX2195	CCD CUSHION	1	
317 (3)		VEK6143	CCD U.	1	
318 (3)		VSC3764	CCD SHIELD CASE	1	
319 (3)		VMD2023	CAM P.C.BOARD FRAME	1	
320 (3)		VMP3695	CAMERA FRAME	1	
321 (3)		VMX2232	WASHER	2	
323 (3)		VDW0329	FRONT FRAME	1	
324 (3)		VDW0314	FOCUS RING (1)	1	
325 (3)		VDW0312	REAR FRAME	1	
330 (3)		VGQ1986	CHARA. GENE. JACK PIECE	1	
331 (3)		VMP4586	LENS FRAME	1	
B301 (3)		XTB26+6F	SCREW	2	
B302 (3)		XTB26+6J	SCREW	2	
B303 (3)		XTN2+B4FY	SCREW	3	
B304 (3)		XTV26+8FR	SCREW	1	
B305 (3)		XQN16+CJ4	SCREW	2	
B306 (3)		XQN16+CJ5	SCREW	4	
B307 (3)		XQN16+CJ35	SCREW	1	
B308 (3)		XQN2+CJ6	SCREW	1	
701 (7)		VPC1309	SHOLDER STRAP	1	NV-MS5EG/A,
					NV-M9500EN
702 (7)		VJA0180	BATTERY CATCHER	1	NV-MS5EG/A,
					NV-M9500EN
703 (7)		VJA0788	AV OUTPUT CABLE	1	NV-MS5EG/A,
					NV-M9500EN
704 (7)		VJA0573	3-PIN DC INPUT CABLE	1	NV-MS5EG/A,
					NV-M9500EN
705 (7)		VPN3478	ACCESSORY PAD	1	NV-MS5EG/A,
					NV-M9500EN
706 (7)		VPN3476	ACCESSORY BOX	1	NV-MS5EG/A,
					NV-M9500EN
707 (7)		VQT6470	OPERATING INSTRUCTIONS	1	NV-MS5EG
			(ENGLISH)		
707 (7)		VQT6471	OPERATING INSTRUCTIONS	1	NV-MS5EG
			(ITALIAN)		
707 (7)		VQT6472	OPERATING INSTRUCTIONS	1	NV-MS5EG
			(FINNISH)		
707 (7)		VQT6474	OPERATING INSTRUCTIONS	1	NV-MS5A
			(ENGLISH)		
707 (7)		VQT6475	OPERATING INSTRUCTIONS	1	NV-M9500EN
708 (7)		VPN3474	CUSHION (UPPER)	1	NV-MS5EG/A,
					NV-M9500EN

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
709 (7)		VPN3475	CUSHION (LOWER)	1	NV-MS5EG/A,
					NV-M9500EN
710 (7)		VPG8432	PACKING CASE	1	NV-MS5EG
710 (7)		VPG8434	PACKING CASE	1	NV-MS5A
710 (7)		VPG8435	PACKING CASE	1	NV-M9500EN
711 (7)		VFA0151	21-PIN ADAPTOR	1	NV-MS5EG
712 (7)		VJA0816	4-PIN S-VHS CABLE	1	NV-MS5EG/A,
					NV-M9500EN
801 (8)		VPC1309	SHOLDER STRAP	1	NV-MS5B
802 (8)		VJA0180	BATTERY CATCHER	1	NV-MS5B
803 (8)		VJA0573	3-PIN DC INPUT CABLE	1	NV-MS5B
804 (8)		VJA0788	AV OUTPUT CABLE	1	NV-MS5B
805 (8)		VQT6473	OPERATING INSTRUCTIONS	1	NV-MS5B
806 (8)		VPK1867	ACCESSORY CASE	1	NV-MS5B
807 (8)		VPN2612	CUSHION	2	NV-MS5B
808 (8)		VPG8433	PACKING CASE	1	NV-MS5B
810 (8)		VJA0816	4-PIN S-VHS CABLE	1	NV-MS5B
811 (8)		VFA0151	21-PIN ADAPTOR	1	NV-MS5B
			****** JIG & TOOLS ******		
		VFK0374	COLOUR TEMP. CONV. FILTER	1	
		VFK0375	COLOUR TEMP. CONV. FILTER	1	
		VFK0644	EVR FIXTURE	1	
		VFK0701ROM32	ROM	1	
		VFK0766A	EVR CONNECTION CABLE	1	
		VFK0734W	CONNECTION CABLE FOR	1	
			MEASURMENT	1	
		VFK0667	EXTENSION CABLE 30P	1	
		VFK0724	EXTENSION CABLE 32P	1	
		VFK0783	EXTENSION CABLE 12P	1	
		VFK0802	FLAT CABLE 24P	1	
		VFK0823	FLAT CABLE 6P	1	
		VFJ8125H3F	VHS-ALLGNMENT TAPE (PAL)	1	
		VFK0144	RETAINING RING REMOVER	1	
			(3mm)		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0189	H-POSITION ADJ. -FIXTURE	1	
		VFK0137	POST ADJUSTMENT SCREWDRIVER	1	
		VFK66	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0343	CHECK LIGHT	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0136	FINE ADJUSTMENT SCREWDRIVER	1	
		VFK0134	ADAPTOR FOR VFK0133	1	
		VFK0133	DIAL TORQUE GAUGE	1	

4-3. ELECTRICAL REPLACEMENT PARTS LIST

Note:1.Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE : Components identified with the mark (!) have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS , K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP22117A	CCD DRIVE C.B.A.	1	(RTL)
			(Page:12)		
		VEP23404A	PROCESS C.B.A.	1	(RTL)
			(Page:13)		
		VEP22118A	CCD FLEX. CARD C.B.A.	1	(RTL)
			(Page:15)		
		VEP20437C	CAMERA OPERATION (A) C.B.A.	1	(RTL)
			(Page:15)		INCLUDING THE
					CAMERA OPERATION (B)
					C.B.A.(VEP20438B).
		VEP20438B	CAMERA OPERATION (B) C.B.A.	1	(RTL)
			(Page:15)		INCLUDED IN CAMERA
					OPERATION (A) C.B.A.
					(VEP20437C).
		VEP28068A	EVF C.B.A.	1	(RTL)
			(Page:15)		
		VEP26181A	TALLY C.B.A.	1	(RTL)
			(Page:16)		
		VEP03D30A	MAIN C.B.A.	1	(RTL)
			(Page:16)		INCLUDING THE TBC
					C.B.A.(VEP03D31A).
		VEP03D31A	TBC C.B.A.	1	(RTL)
			(Page:24)		INCLUDED IN MAIN
					C.B.A.(VEP03D30A).
		VEP06817A	VIR OPERATION (A) C.B.A.	1	(RTL)
			(Page:25)		INCLUDING THE VIR
					OPERATION (B) C.B.A.
					(VEP06847B).
		VEP06847B	VIR OPERATION (B) C.B.A.	1	(RTL)
			(Page:25)		INCLUDED IN VIR
					OPERATION (A) C.B.A.
					(VEP06817A).
		VEP03D37A	AV JACK (A) C.B.A.	1	(RTL)
			(Page:25)		
		VEP03957C	AV JACK (B) C.B.A.	1	(RTL)
			(Page:25)		
		VXU1138	ZOOM BUTTON C.B.A.	1	(RTL)
			(Page:26)		INCLUDING THE S/S
					C.B.A.(VEK5869),
					SUB S/S C.B.A.
					(VEK5870).
		VEK5869	S/S C.B.A.	1	(RTL)
			(Page:26)		INCLUDED IN ZOOM
					BUTTON C.B.A.
					(VXU1138).
		VEK5870	SUB S/S C.B.A.	1	(RTL)
			(Page:26)		INCLUDED IN ZOOM
					BUTTON C.B.A.
					(VXU1138).

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEK5865	CHARA/GENE C.B.A.	1	(RTL)
			(Page:26)		
		VEK5060	FE HEAD C.B.A.	1	(RTL)
			(Page:26)		
		VES0689	MECHANISM CONNECTION C.B.A.	1	(RTL)
			(MODE SELECT SWITCH UNIT)		
			(Page:26)		
	■	VEP22117A	CCD DRIVE C.B.A.		(RTL)
B201		VJP3159A032	CONNECTOR (MALE) 32P	1	
B202		VJP2962C012	CONNECTOR (MALE) 12P	1	
C201		ECST1CX685Z	T.CAPACITOR CH 16V 68U	1	
C202,03		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C205		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C206,07		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C209		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	1	
C210		ECST1VX155Z	T.CAPACITOR CH 35V 1.5U	1	
C211		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	1	
C212		ECST1VX225Z	T.CAPACITOR CH 35V 2.2U	1	
C213,14		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C215		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C216,17		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C218		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C220		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C221		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C222		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C223		ECRJA020E11	TRIMMER 2P	1	
C224		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C226		ECUM1C185ZFN	C.CAPACITOR CH 16V 1.8U	1	
C227,28		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C229		ECRV0GA330	E.CAPACITOR CH 4V 33U	1	
C230		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C231,32		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C233		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C234		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C235		ECST1CX685Z	T.CAPACITOR CH 16V 68U	1	
C236		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C237		ECST0GY106Z	T.CAPACITOR CH 4V 10U	1	
C238-40		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C241		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C242		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C243		ECUM1H473ZFV	C.CAPACITOR CH 50V 0.047U	1	
C244		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C245		ECST1CX685Z	T.CAPACITOR CH 16V 68U	1	
C246		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C247		ECUX1H060CCV	C.CAPACITOR CH 50V 6P	1	
C248		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C249		ECUX1H050CCV	C.CAPACITOR CH 50V 5P	1	
C251		ECST1VX155Z	T.CAPACITOR CH 35V 1.5U	1	
C252		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C254		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C258,59		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C260,61		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	2	
C262		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C263		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C264		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C266		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C267-69		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C270		ECUX1H050CCV	C.CAPACITOR CH 50V 5P	1	
C271		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
D201		MA110	DIODE	1	
D203,04		MA110	DIODE	2	
D205		MA728	DIODE	1	
D206,07		MA110	DIODE	2	
D209		MA110	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
FL201		ELB3H010	FILTER	1	
IC201		MN5188	IC	1	
IC202		MN3110SA	IC	1	
IC203		AN2013SB	IC	1	
IC204		AN2032FAP	IC	1	
IC205		NJM2904V	IC	1	
L201-07		ELJFC150KB	COIL	7	
L208		VLQ0426J330	COIL 33UH	1	
L209		VLQ0556	COIL	1	
L210		ELJFC150KB	COIL	1	
L211,12		VLQ0556	COIL	2	
L214,15		VLQ0555	COIL	2	
L221		VLQ0401K4R7	COIL 4.7UH	1	
L222		ELJFC3R3KB	COIL 3.3UH	1	
L224		VLQ0555	COIL	1	
Q201		XP4654	TRANSISTOR-TRANSISTOR	1	
Q202.03		2SD1819	TRANSISTOR	2	
Q205		XP4654	TRANSISTOR-TRANSISTOR	1	
Q206		XN4601	TRANSISTOR-TRANSISTOR	1	
Q207		XP4654	TRANSISTOR-TRANSISTOR	1	
Q211		2SB1218	TRANSISTOR	1	
Q214		2SD1819	TRANSISTOR	1	
Q215		XN4601	TRANSISTOR-TRANSISTOR	1	
Q219		2SB1218	TRANSISTOR	1	
R201		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R202		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R203		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R204		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R206		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R209		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R210		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R211		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R212		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R214		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R215		ERJ3GEVJ822	M.RESISTOR CH 1/16W 8.2K	1	
R216		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R218		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R219		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R220		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R221		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R223		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R224		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R225		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R226		ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R227		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R228		ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R229		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R230		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R232		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R236		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R237		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R239		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R241		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R242		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R243		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R244		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R245		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R249		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R253		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R254		ERJ3GEYJ824	M.RESISTOR CH 1/16W 820K	1	
R255,56		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R257		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R258		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R259		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R265		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R266		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R267		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R268		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R269		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R270		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R271		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R272		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R273		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R274-76		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	3	
R277		VRE0071E123	M.RESISTOR 12K	1	
R278		VRE0071E823	M.RESISTOR 82K	1	
R279		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R280		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R281		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R282		ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R283-89		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	7	
R290		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R291		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R292		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R293		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
X201		VSX0530	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3635	SHIELD COVER (A)	1	
		VSC3636	SHIELD COVER (B)	1	
	■	VEP23404A	PROCESS C.B.A.		(RTL)
C305-08		ECST0JY106Z	T.CAPACITOR 6.3V 10U	4	
C309		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C310		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C311		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C312		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C313		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C314,15		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C317		ECUX1C1042FV	C.CAPACITOR CH 16V 0.1U	1	
C318		ECUM1C1052FN	C.CAPACITOR CH 16V 1U	1	
C321		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C322		ECUM1C1052FN	C.CAPACITOR CH 16V 1U	1	
C323		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C324		ECUX1C1042FV	C.CAPACITOR CH 16V 0.1U	1	
C325		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C326		ECUX1C1042FV	C.CAPACITOR CH 16V 0.1U	1	
C328,29		ECUM1C1052FM	C.CAPACITOR CH 16V 1U	2	
C330.31		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	2	
C334		ECST0GY106Z	T.CAPACITOR CH 4V 10U	1	
C335		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C336		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C337,38		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	2	
C339		ECUX1H181JCV	C.CAPACITOR CH 50V 180P	1	
C340		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C341,42		ECUX1C1042FV	C.CAPACITOR CH 16V 0.1U	2	
C343		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C357		ECUM1C2242FN	C.CAPACITOR CH 16V 0.22U	1	
C358-62		ECUX1C1042FV	C.CAPACITOR CH 16V 0.1U	5	
C363		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C380,81		ECUM1C1052FN	C.CAPACITOR CH 16V 1U	2	
C701		ECUM1H1042FN	C.CAPACITOR CH 50V 0.1U	1	
C703		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C704		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C705		ECUX1C683ZFV	C.CAPACITOR CH 16V 0.068U	1	
C706-09		ECUX1C1042FV	C.CAPACITOR CH 16V 0.1U	4	
C710		ECUM1H473ZFV	C.CAPACITOR CH 50V 0.047U	1	
C711		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C712		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C713,14		ECUM1C2242FN	C.CAPACITOR CH 16V 0.22U	2	
C715		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C716		ECUM1C2242FN	C.CAPACITOR CH 16V 0.22U	1	
C717		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C718	ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C719	ECST0GY106Z	T.CAPACITOR CH 4V 10U	1	
C720,21	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C722-24	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C726	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C727	ECEV1EA330	E.CAPACITOR CH 25V 33U	1	
C728	ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C729,30	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C731	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C732	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C733	ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C734	ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C738	ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C746	ECUM1C225ZFM	C.CAPACITOR CH 16V 2.2U	1	
C747	ECEV0JA470	E.CAPACITOR 6.3V 47U	1	
C748	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C750	ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
D301	1SS355	DIODE	1	
D302	MA728	DIODE	1	
D701	1SS355	DIODE	1	
FL301	VLF1067	FILTER	1	
FP301	VJS2958B017	CONNECTOR (FEMALE) 17P	1	
FP701	VJS2959B024	CONNECTOR (FEMALE) 24P	1	
IC305	SC7S04F	IC	1	
IC306	MN6732	IC	1	
IC307	MN655431SH	IC	1	
IC308	MN73512XWAS	IC	1	
IC309	MN1882010M7G	IC	1	
IC310	AK6420HF-E1	IC	1	
IC311	MN13821-Y	IC	1	
IC312	MN1882010V6K	IC	1	
IC315	MN657011H	IC	1	
IC317	AN2040SB	IC	1	
IC330	MB88346BPFV	IC	1	
IC701	MN12821Q	IC	1	
IC702	MN6782M7K	IC	1	
IC703	AN2585FAP	IC	1	
IC704	NJM2904V	IC	1	
IC705	LM324DB	IC	1	
IC706	AN6663S	IC	1	
IC707	AN6545SP	IC	1	
IC708	TB6504F	IC	1	
IC709	SC7S08F	IC	1	
L301,02	VLP0146	INDUCTOR	2	
L305	ELJFC150KB	COIL	1	
L306-11	ELJPC6R8KB	COIL 6.8UH	6	
L312	VLQ0291	COIL	1	
L313,14	ELJPC6R8KB	COIL 6.8UH	2	
L316	ELJPC6R8KB	COIL 6.8UH	1	
L320	VLQ0426J330	COIL 33UH	1	
L322	VLQ0426J5R6	COIL 5.6UH	1	
L324	VLQ0584	COIL	1	
L325,26	VLP0140	COIL	2	
L327	VLQ0584	COIL	1	
L328	VLP0140	COIL	1	
L702	ELJPA101KB	COIL 100UH	1	
L703	ELJFC150KB	COIL 15UH	1	
L704	ELJFA150KB	COIL 15UH	1	
L705	ELJPA150KB	COIL 15UH	1	
P301	VJP3172B004	CONNECTOR (MALE) 4P	1	
P305	VJP3172B005	CONNECTOR (MALE) 5P	1	
P701	VJP3172B003	CONNECTOR (MALE) 3P	1	
P701	VJS3172B003	CONNECTOR (FEMALE) 3P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P4302	VJS3172B003	CONNECTOR (FEMALE) 3P	1	
PP301	VJS3024C032	CONNECTOR (FEMALE) 32P	1	
PP302	VJP2962A030	CONNECTOR (MALE) 30P	1	
PP303	VJP2962A024	CONNECTOR (MALE) 24P	1	
Q301	XP4601	TRANSISTOR-RESISTOR	1	
Q305	2SC4176	TRANSISTOR	1	
Q701	2SD1819	TRANSISTOR	1	
Q702	2SD2210	TRANSISTOR	1	
QR301	UN5213	TRANSISTOR-RESISTOR	1	
QR701,02	UN5211	TRANSISTOR-RESISTOR	2	
R301	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R302,03	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R304	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R305	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R307	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R308,09	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R310	ERJ3GEYJ10Z	M.RESISTOR CH 1/16W 1K	1	
R311	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R313	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R314	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R315-17	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R318	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R319	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R320	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R321,22	ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	2	
R323-26	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	4	
R328,29	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R331-34	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	
R335	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R337	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R338	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R339	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R341	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R342,43	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R344-47	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R348-50	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R351,52	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R353-55	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R357-59	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R360	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R361	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R362,63	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R364	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R365-71	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	7	
R374-81	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	8	
R382,83	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R384	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R386	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R387-89	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	3	
R390,91	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R392	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R393	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R394	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R397	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R398	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R399-02	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	4	
R403	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R404	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R405	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R406	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R407	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R409	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R414-17	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	4	
R424	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R425	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R450,51	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R460-62	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R500		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R502		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R503		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R505		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R701		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R702		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R703		ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R704,05		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R706		ERJ3GEYG562	M.RESISTOR CH 1/16W 5.6K	1	
R707		ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R708		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R710		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R711		ERJ3GEYG103	M.RESISTOR CH 1/16W 10K	1	
R712		ERJ3GEYG303	M.RESISTOR CH 1/16W 30K	1	
R713		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R714		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R715		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R716		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R717,18		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R719		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R720		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R721		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2M	1	
R722		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R723		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R724		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R725		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R726		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R727		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R728		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R729		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R730		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R731		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R732-34		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
R735		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R736		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R738		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R739		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R740		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R741,42		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R743		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R744		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R745		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R746		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R747,48		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R749		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R750		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R751		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R752		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R753		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R754		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R755		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R756		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R757		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R759,60		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R761		ERJ8GEYJ680	M.RESISTOR CH 1/8W 68	1	
R762-64		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
TH701		VRT0032K152	THERMISTOR	1	
VR701		EVM7JSX30B54	V.RESISTOR 50K	1	
X301,02		EFOV8004B0A	CRYSTAL OSCILLATOR	2	
X701		EFOV6754B0A	CRYSTAL OSCILLATOR	1	
X702		EFOV8004B0A	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3637	SHIELD COVER (A)	1	
		VSC4471	SHIELD COVER (B)	1	
		VEE7791	WIRE CABLE	1	
		VMZ2077	BARRIER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP22118A	CCD FLEX. CARD C.B.A.		(RTL)
B291		VJS2961C012	CONNECTOR (FEMALE) 12P	1	
C292		ECST1VX225Z	T.CAPACITOR 35V 2.2U	1	
C293,94		ECUM1E473ZFN	C.CAPACITOR 25V 0.047U	2	
C295		ECUM1E104ZFN	C.CAPACITOR 25V 0.1U	1	
D291		MA153	DIODE	1	
Q291		2SC2295	TRANSISTOR	1	
R291		ERJ6GEYG560	M.RESISTOR CH 1/10W 56	1	
R292		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R293		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
			MISCELLANEOUS		
		VJB22118	FLEX. CARD	1	
	■	VEP20437C	CAMERA OPERATION (A) C.B.A.		(RTL) INCLUDING THE
					CAMERA OPERATION (B)
					C.B.A.(VEP20438B).
FP6701		VJS2140	CONNECTOR (FEMALE)	1	
P6007		VJS3172B006	CONNECTOR (FEMALE) 6P	1	
P6701		VJP3331B006	CONNECTOR (MALE) 6P	1	
P6701		VJS3172B006	CONNECTOR (FEMALE) 6P	1	
SW6702		EVQ21804B	SWITCH	1	
SW6713		EVQ21804B	SWITCH	1	
SW6714		VSS0127	SWITCH	1	
SW6715		VSS0126	SWITCH	1	
SW6716,17		EVQ21804B	SWITCH	2	
SW6719		EVQ21804B	SWITCH	1	
SW6722-24		EVQ21804B	SWITCH	3	
			MISCELLANEOUS		
		VWJ04C0035AA	FLAT CARD CABLE	1	
		VWJ0638	FLAT CARD CABLE	1	
		VEE7784	WIRE CABLE	1	
	■	VEP20438B	CAMERA OPERATION (B) C.B.A.		(RTL)INCLUDED IN
					CAMERA OPERATION (A)
					C.B.A.(VEP20437C).
SW6701		EVQ21804B	SWITCH	1	
SW6703,04		EVQ21804B	SWITCH	2	
	■	VEP28068A	EVF C.B.A.		(RTL)
C801		ECHU1C104J	P.CAPACITOR CH 16V 0.1U	1	
C802		ECEA1CKE101	E.CAPACITOR 16V 100U	1	
C804		ECUM1C155ZFN	C.CAPACITOR CH 16V 1.5U	1	
C805		ECEA0JKE221	E.CAPACITOR 6.3V 220U	1	
C806		ECUM1E123KBN	C.CAPACITOR CH 25V 0.012U	1	
C807		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C808		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C809		ECA1EKF100	E.CAPACITOR 25V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C810		ECUM2A472JUM	C.CAPACITOR CH100V 4700P	1	
C811		ECEA1CKE101	E.CAPACITOR 16V 100U	1	
C812		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C813		VCKO088K151E	C.CAPACITOR	1	
C814		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C815		ECUM2H331KBM	C.CAPACITOR CH500V 330P	1	
C816		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C820		ECUM2A102JUN	C.CAPACITOR CH100V 1000P	1	
C831		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
D801		MA141K	DIODE	1	
D802		SFPL-52	DIODE	1	
IC801		AN2515NS	IC	1	
L801		ELJPA39UKB	COIL 39UH	1	
L802		ELH5L218D	COIL	1	
P801		VJP1598T	CONNECTOR (MALE) 5P	1	
P802		VJP3007E004	CONNECTOR (MALE) 4P	1	
P803		VJP1229T	CONNECTOR (MALE) 2P	1	
P804		VJP3007E003	CONNECTOR (MALE) 3P	1	
Q802		2SD968A-S	TRANSISTOR	1	
Q803		2SA1532	TRANSISTOR	1	
R801		ERJ6ENF4422	M.RESISTOR CH 1/10W 2.2K	1	
R802		ERJ6GEYJ3R9	M.RESISTOR CH 1/10W 3.9	1	
R805		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R807		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R808		ERJ3GEYJ242	M.RESISTOR CH 1/16W 2.4K	1	
R809		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R810		ERJ6GMYF104	M.RESISTOR CH 1/10W 100K	1	
R814		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R815		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R816		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R817		ERJ3GEYJ242	M.RESISTOR CH 1/16W 2.4K	1	
R818		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R819,20		ERJ6GEYJ335	M.RESISTOR CH 1/10W 3.3M	2	
R821		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R823		ERJ3GEYJ120	M.RESISTOR CH 1/16W 12	1	
R825		VSF0015A025	IC PROTECTOR	1	<!>
R830		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R832		ERJ6ENF4222	M.RESISTOR CH 1/10W 2.2K	1	
T801		ETF08L16B	TRANSFORMER	1	<!>
VR801		EVM7JSX30BE2	V.RESISTOR	1	
VR803		EVMLPNA00BV6	V.RESISTOR	1	
VR804		EVMLPNA00BE6	V.RESISTOR	1	
	■	VEP26181A	TALLY C.B.A.		(RTL)
C1881		ECEV0JA101	E.CAPACITOR CH 6.3V 100U	1	
C1882		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C1885		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C1886		ECST0JY4752	T.CAPACITOR CH 6.3V 4.7U	1	
D1881		BR3336S	DIODE	1	
D1882		PH310	IR RECEIVER UNIT	1	
IC1882		M52944FP	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC1883		TA75W393FU	IC	1	
L1881		ELJPC6R8KB	COIL 6.8UH	1	
P1881		VJP3125D004	CONNECTOR (MALE) 4P	1	
P1882		VJP3172B004	CONNECTOR (MALE) 4P	1	
Q1881		2SD1030-S	TRANSISTOR	1	
R1881		ERJ3GEYJ125	M.RESISTOR CH 1/16W 1.2M	1	
R1882		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1883		ERJ8GEYJ181	M.RESISTOR CH 1/8W 180	1	
R1884		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R1885		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1886		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1890		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
VR1881		EVM7JSX30B14	V.RESISTOR 10K	1	
			MISCELLANEOUS		
		VQQ3310	IR RECEIVER HOLDER	1	
		VQQ3306	IR RECEIVER SPACER	1	
		VDL0397	IR RECEIVER FILTER	1	
	■	VEP03D30A	MAIN C.B.A.		(RTL)
					INCLUDING THE TBC
					C.B.A.(VEP03D31A).
C1001		ECUM1C225ZFM	C.CAPACITOR CH 16V 2.2U	1	
C1002		ECEV1EA680	E.CAPACITOR CH 25V 68U	1	
C1003		ECGC0KB8R2	C.CAPACITOR 8V 8.2U	1	
C1004		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1005		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	1	
C1006		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C1007		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C1008		ECGC0KB8R2	C.CAPACITOR 8V 8.2U	1	
C1009		ECUX1H681JCV	C.CAPACITOR CH 50V 680P	1	
C1010		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	1	
C1011		ECUM1C225ZFM	C.CAPACITOR CH 16V 2.2U	1	
C1012		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C1013		ECGC1BB4R7	C.CAPACITOR 12V 4.7U	1	
C1014		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C1016		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C1017		ECUM1E105ZFM	C.CAPACITOR CH 25V 1U	1	
C1019		ECUM1E474ZFM	C.CAPACITOR CH 25V 0.47U	1	
C1020		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C1022		ECUM1H104ZFM	C.CAPACITOR CH 50V 0.1U	1	
C1024		ECUM1C474ZFM	C.CAPACITOR CH 16V 0.47U	1	
C1025		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C1026		ECEV1HA010	E.CAPACITOR 50V 1U	1	
C1027		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C1028		ECUM1C474KBM	C.CAPACITOR CH 16V 0.47U	1	
C1029		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1030		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1031		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1032		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1033,34		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C1035		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C1036		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1037		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1061		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C1062		ECEV1EA470	E.CAPACITOR CH 25V 47U	1	
C1063		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C1064		ECEV1EA470	E.CAPACITOR CH 25V 47U	1	
C1065,66		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	2	
C1068		ECEV1CA101	E.CAPACITOR 16V 100U	1	
C1069,70		ECUM1C475ZFM	C.CAPACITOR CH 16V 4.7U	2	
C1071		ECUM1E225ZFM	C.CAPACITOR CH 25V 22U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1072		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C1073		ECUM1E105ZFM	C.CAPACITOR CH 25V 1U	1	
C1074		ECUM1C475ZFM	C.CAPACITOR CH 16V 4.7U	1	
C1106		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C1107		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C1108		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1109		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C1110		ECST1CY3352	T.CAPACITOR CH 16V 3.3U	1	
C1111		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C2101		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C2102		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2103		ECST1AY475Z	T.CAPACITOR CH 16V 4.7U	1	
C2104		ECUM1E473KBN	C.CAPACITOR CH 25V 0.047U	1	
C2105,06		ECUX1H561KBV	C.CAPACITOR CH 50V 560P	2	
C2107		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C2108		ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C2109		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C2110		ECUX1E223KBV	C.CAPACITOR CH 25V 0.023U	1	
C2111		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2112		ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C2113		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2115		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C2116		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C2117,18		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C2119-21		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C2122		ECUX1H333ZFV	C.CAPACITOR CH 50V 0.033U	1	
C2123-25		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C2126		ECEV1HAR47	E.CAPACITOR 50V 0.47U	1	
C2127		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2128		ECUX1H333ZFV	C.CAPACITOR CH 50V 0.033U	1	
C2129		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2130		ECEV0SA470	E.CAPACITOR CH 4V 47U	1	
C2131		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C2132		ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C2133		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2134		ECEV1AA330	E.CAPACITOR CH 10V 330U	1	
C2135		ECEV0GA101	E.CAPACITOR CH 4V 100U	1	
C2136		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C2141		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2142		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2143		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C2144-46		ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	3	
C2147,48		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	2	
C2149		ECUM1C185ZFN	C.CAPACITOR CH 16V 1.8U	1	
C2150		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C2151		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C3002		ECEV0GA470	E.CAPACITOR CH 4V 47U	1	
C3003.04		ECEV0GA471	E.CAPACITOR CH 4V 470U	2	
C3005		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C3006		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3007		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3008		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3009		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C3010		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3011,12		ECST0JY475Z	T.CAPACITOR CH 6.3V 4.7U	2	
C3013		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3014		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3015		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3016		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C3017		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3018		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3019		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C3021,22		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	2	
C3023		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3024		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3025,26		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C3027		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3028		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3029		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3030		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C3031		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3033,34		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3036		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C3037		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3042		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3043		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3045		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C3047		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3055		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3059		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C3060		ECEV1CAN4R7	E.CAPACITOR CH 16V 4.7U	1	
C3061		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C3062		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3065		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3067		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C3069		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C3071		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3072		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3075		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3080		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3081		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3087		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3091		ECST1AD336Z	T.CAPACITOR CH 10V 33U	1	
C3092		ECST1CD226Z	T.CAPACITOR CH 16V 22U	1	
C3093		ECST0JC336Z	T.CAPACITOR CH 6.3V 33U	1	
C3094		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3095		ECUX1E123KBV	C.CAPACITOR CH 25V 0.012U	1	
C3098		ECST0JC336Z	T.CAPACITOR CH 6.3V 33U	1	
C3201		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3203		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3208		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3212		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3801		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3802		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3803		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3804		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3805		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3806,07		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	2	
C3808,09		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C3810		ECST0JC336Z	T.CAPACITOR CH 6.3V 33U	1	
C3811-13		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C3814		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3815		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3816		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3817		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C3818		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4001		ECEV1HA2R2	E.CAPACITOR 50V 2.2U	1	
C4002		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C4003		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C4004		ECUX1H122KBV	C.CAPACITOR CH 50V 1200P	1	
C4005		ECUX1C153KBV	C.CAPACITOR CH 16V 0.015U	1	
C4006		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C4007		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C4008		ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	1	
C4009		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C4010		ECEV0SA470	E.CAPACITOR CH 4V 47U	1	
C4011		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C4012		ECEV1HA2R2	E.CAPACITOR 50V 2.2U	1	
C4013		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C4014		ECEV0JAN220	E.CAPACITOR CH 6.3V 22U	1	
C4015		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C4016		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4017		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C4018		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C4019		ECUM2A682JCM	C.CAPACITOR CH100V 6800P	1	
C4020		ECUX1H123KBV	C.CAPACITOR CH 50V 0.012U	1	
C4021		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4022		ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C4023		ECEV0GA101	E.CAPACITOR CH 4V 100U	1	
C4024		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C4029,30		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C4031		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4032		ECUX1H562KBV	C.CAPACITOR CH 50V 5600P	1	
C4034		ECEV0GA101	E.CAPACITOR CH 4V 100U	1	
C4035,36		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C4039,40		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	2	
C4047,48		ECST0JX226Z	T.CAPACITOR CH 6.3V 22U	2	
C4049,50		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C4051,52		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	2	
C4053		ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4054		ECST0JX156Z	T.CAPACITOR CH 6.3V 15U	1	
C4055		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C4056		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C4057		ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C4059,60		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	2	
C4501,02		ECEV0GAN470	E.CAPACITOR CH 4V 47U	2	
C4503,04		ECEV1AAN100	E.CAPACITOR CH 10V 10U	2	
C4505,06		ECEV0JA220	E.CAPACITOR 6.3V 22U	2	
C4507		ECST1AY475Z	T.CAPACITOR CH 16V 4.7U	1	
C4508		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C4509		ECEV1EA4R7	E.CAPACITOR CH 25V 4.7U	1	
C4510		ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C4511,12		ECEV05A470	E.CAPACITOR CH 4V 47U	2	
C4513		ECST1AD476Z	T.CAPACITOR CH 10V 47U	1	
C4514		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C4515,16		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	2	
C4517		ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C4518		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C4519		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C4520		ECUX1H391JCV	C.CAPACITOR CH 50V 390P	1	
C4521		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C4522		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C4523		ECUX1H181JCV	C.CAPACITOR CH 50V 180P	1	
C4524		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C4525		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4526		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	1	
C4528		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	1	
C4529		ECST1AD476Z	T.CAPACITOR CH 10V 47U	1	
C4530		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C4532,33		ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	2	
C5001		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5002,03		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5004-07		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C5008-11		ECUX1C103KBV	C.CAPACITOR CH 16V 0.01U	4	
C5012-15		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	4	
C5016-23		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	8	
C5024		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5025-27		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C5028		ECUM1E273KBN	C.CAPACITOR CH 25V 0.027U	1	
C5029		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C5030,31		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5032		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5033		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5034		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5035		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5036-39		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C5040-43		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	4	
C5044-47		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C5048-51		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C5052		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C5053		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C5054		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C5055,56		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C5058		ECST0JY1062	T.CAPACITOR 6.3V 10U	1	
C5059		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5062-65		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C5066		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5067		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5072		ECUX1E123KBV	C.CAPACITOR CH 25V 0.012U	1	
C5073		ECUM1E683KBN	C.CAPACITOR CH 25V 0.068U	1	
C5080		ECST0JY1062	T.CAPACITOR 6.3V 10U	1	
C5081		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5501		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C5502		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5503		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C5504		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5505		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5506		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5507		ECUX1H060CCV	C.CAPACITOR CH 50V 6P	1	
C5508		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C5515		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5516		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5517		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5540		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C5548		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C5549		ECEV1EA4R7	E.CAPACITOR CH 25V 4.7U	1	
C5562,63		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	2	
C5565		ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C5566		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C5571		ECUX1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C5572		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5574		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C5576		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C5581		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C5601		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5602		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C5603		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C5605		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C5607		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C6001		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6003-05		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C6006-08		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C6009		ECEV1VA220	E.CAPACITOR CH 35V 22U	1	
C6010,11		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C6012		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6013		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C6014		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6015		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C6016		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C6018		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6019		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6020,21		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C6022,23		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	2	
C6024		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6025		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C6026		ECEV05A330	E.CAPACITOR CH 4V 33U	1	
C6027		ECEV1VA220	E.CAPACITOR CH 35V 22U	1	
C6028		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6029,30		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	2	
C6031		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6032		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C6033		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6034		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C6035		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6036,37		ECEV05A470	E.CAPACITOR CH 4V 47U	2	
C6038		ECST1EC475Z	T.CAPACITOR CH 25V 4.7U	1	
C6040		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
C6041		ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C6042,43		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C6201		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6202		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C6203		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6204		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C6206		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C6207		ECEV1HA3R3	E.CAPACITOR CH 50V 3.3U	1	
C6208,09		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	2	
C6210		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C6211		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C6212		ECEV1EA4R7	E.CAPACITOR CH 25V 4.7U	1	
C6213		ECUX1H223ZFV	C.CAPACITOR CH 50V 0.022U	1	
C6214		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6215		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C6217		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C6218		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6219		ECUM1H273KBM	C.CAPACITOR CH 50V 0.027U	1	
D1002		MA736	DIODE	1	
D1004		MA736	DIODE	1	
D1005		SB05-05CP	DIODE	1	
D1006,07		MA142K	DIODE	2	
D1008		MA728	DIODE	1	
D1010,11		MA3200M	DIODE	2	
D1012		MA143	DIODE	1	
D1061,62		SB05-05CP	DIODE	2	
D1063,64		MA728	DIODE	2	
D1065		MA3130-M	DIODE	1	
D1107		MA141WA	DIODE	1	
D1108		MA143	DIODE	1	
D2101		MA143	DIODE	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
D2102	MA3100	DIODE	1	
D3004	MA143	DIODE	1	
D3005	MA729	DIODE	1	
D3006	MA141K	DIODE	1	
D3201,02	MA729	DIODE	2	
D3809	MA142K	DIODE	1	
D3901,02	MA745	DIODE	2	
D4001	MA142K	DIODE	1	
D4004	MA142WK	DIODE	1	
D4005	MA142K	DIODE	1	
D4006-08	MA157	DIODE	3	
D4501	MA142WK	DIODE	1	
D4502	MA143	DIODE	1	
D4503	MA141K	DIODE	1	
D5001	MA159	DIODE	1	
D5002	MA132WA	DIODE	1	
D5003	MA159	DIODE	1	
D5004	MA132WA	DIODE	1	
D5005	MA133	DIODE	1	
D5006-09	MA728	DIODE	4	
D5501	MA132WK	DIODE	1	
D6001	MA143	DIODE	1	
D6002	MA132WK	DIODE	1	
D6004-07	MA141WA	DIODE	4	
D6008	MA121	DIODE	1	
D6009,10	MA745	DIODE	2	
D6012	MA132WK	DIODE	1	
D6013	MA132WA	DIODE	1	
D6014,15	MA141WA	DIODE	2	
D6016,17	MA141K	DIODE	2	
D6018	MA3062	DIODE	1	
D6019	MA3220	DIODE	1	
D6020	MA141K	DIODE	1	
D6022,23	MA141K	DIODE	2	
D6024	BR1102W	DIODE	1	
D6025,26	MA745	DIODE	2	
D6201	MA141K	DIODE	1	
FL4501	VLF0934	FILTER	1	
FL4502	VLF0935	FILTER	1	
FP2101	VJS2958B010	CONNECTOR (FEMALE) 10P	1	
FP2102	VJS2848B014	CONNECTOR (FEMALE) 14P	1	
FP3001	VJS3406D016	CONNECTOR (FEMALE) 16P	1	
FP4001	VJS2959B007	CONNECTOR (FEMALE) 7P	1	
FP5001	VJS2958B023	CONNECTOR (FEMALE) 23P	1	
FP6001	VJS2960A012	CONNECTOR (FEMALE) 12P	1	
IC1001	BA9703K	IC	1	
IC1102	NJM2903V	IC	1	
IC2101	AN3893NFHP	IC	1	
IC2102	UN224	TRANSISTOR-RESISTOR	1	
IC2103	AN3841SR	IC	1	
IC2104	NJM2904M	IC	1	
IC3001	VEFH25D	HIC	1	
IC3002	TL8809F	IC	1	
IC3003	AN3298NSB	IC	1	
IC3004	NJM2235MA	IC	1	
IC3801	CP77544APR	IC	1	
IC3802	S8420KF	IC	1	
IC3803	MN12821R	IC	1	
IC3805	TC7W04F	IC	1	
IC4001	BA7757BK	IC	1	
IC4002	BA3308F	IC	1	
IC4501	VEFH27B	HIC	1	
IC5001	AN3350FHP	IC	1	
IC5501	VEFH26B	HIC	1	
IC5502	TL8833F	IC	1	
IC6001	BA6219BFPY	IC	1	
IC6002	UPD6456CT623	IC	1	
IC6003	S3500B3	IC	1	
IC6004	MN6755324M7J	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC6005,06	UPD4071BG	IC	2	
IC6007	SC14S66F	IC	1	
IC6008	UPD4071BG	IC	1	
IC6009	MN12821R	IC	1	
IC6010	S81350HGKD	IC	1	
IC6011	SC7S08F	IC	1	
L1001	ELC6UB4R7M	COIL 4.7UH	1	
L1002	ELL04T034R	TRANSFORMER	1	
L1003	ELC6UB4R7M	COIL 4.7UH	1	
L1004	ELJPA100KB	COIL 10UH	1	
L1007	ELL04T030R	TRANSFORMER	1	
L1008	ELC6UB4R7M	COIL 4.7UH	1	
L1009	ELJPA100KB	COIL 10UH	1	
L1010,11	ELJPA101KB	COIL 100UH	2	
L1061,62	ELL04T031R	TRANSFORMER	2	
L1063,64	ELJPA330KB	COIL 33UH	2	
L1065	ELJPA100KB	COIL 10UH	1	
L1102-04	ELJPA100KB	COIL 10UH	3	
L3001	ELJPA181KB	COIL 180UH	1	
L3002	ELJPA150KB	COIL 15UH	1	
L3003	VLQ0163J820	COIL 82UH	1	
L3004	VLQ0426J150	COIL 15UH	1	
L3005	VLQ0163J121	COIL 120UH	1	
L3006	VLQ0426J3R9	COIL 3.9UH	1	
L3007	VLQ0426J150	COIL 15UH	1	
L3009	ELJPA150KB	COIL 15UH	1	
L3010	VLQ0426J470	COIL 47UH	1	
L3011	VLQ0426J120	COIL 12UH	1	
L3012	VLQ0426J100	COIL 10UH	1	
L3015	VLQ0426J680	COIL 68UH	1	
L3017	VLQ0426J560	COIL 56UH	1	
L3018	ELJPA820KB	COIL 82UH	1	
L3019	ELJPA101KB	COIL 100UH	1	
L3021	VLQ0426J390	COIL 39UH	1	
L3024	ELJPA101KB	COIL 100UH	1	
L3025	ELJPC6R8KB	COIL 6.8UH	1	
L3030	VLQ0426J330	COIL 33UH	1	
L3801	ELJPA150KB	COIL 15UH	1	
L4001	VLQ0423J153	COIL 15MH	1	
L4002	ELJPA470KB	COIL 47UH	1	
L4501	ELJPA271KB	COIL 270UH	1	
L4502,03	ELJPA101KB	COIL 100UH	2	
L4504	VLQ0426J560	COIL 56UH	1	
L5001-03	ELJPA150KB	COIL 15UH	3	
L5004	ELJPA101KB	COIL 100UH	1	
L5005	VLQ0163J120	COIL 12UH	1	
L5006-08	ELJPA150KB	COIL 15UH	3	
L5501	VLQ0426J270	COIL 27UH	1	
L5502,03	VLQ0426J100	COIL 10UH	2	
L5504	ELJPA150KB	COIL 15UH	1	
L5505	ELJFC470JB	COIL 47UH	1	
L5506	VLQ0426J330	COIL 33UH	1	
L5507	ELJPA150KB	COIL 15UH	1	
L5512	ELJPA470KB	COIL 47UH	1	
L5513	VLQ0426J101	COIL 100UH	1	
L5514	VLQ0163J101	COIL 100UH	1	
L5515	VLQ0426J150	COIL 15UH	1	
L5516	ELJFB471KB	COIL 470UH	1	
L6001	VLQ0426J101	COIL 100UH	1	
L6002	VLQ0426J330	COIL 33UH	1	
L6003	ELJPA100KB	COIL 10UH	1	
L6004	VLQ0463	COIL	1	
L6005	ELJPA330KB	COIL 33UH	1	
P1001	VJP3327B002	CONNECTOR (MALE) 2P	1	
P3001	VJP3172B005	CONNECTOR (MALE) 5P	1	
P3002	VJP3172B009	CONNECTOR (MALE) 9P	1	
P4001	VJP3172B005	CONNECTOR (MALE) 5P	1	
P4001	VJS3172B005	CONNECTOR (FEMALE) 5P	1	
P4002	VJP3172B002	CONNECTOR (MALE) 2P	1	
P4301	VJS3172B005	CONNECTOR (FEMALE) 5P	1	
P4501	VJP3172B002	CONNECTOR (MALE) 2P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P6001		VJP3172B004	CONNECTOR (MALE) 4P	1	
P6004,05		VJP3172B002	CONNECTOR (MALE) 2P	2	
P6006		VJP3172B003	CONNECTOR (MALE) 3P	1	
P6007,08		VJP3172B006	CONNECTOR (MALE) 6P	2	
P6009		VJP3172B008	CONNECTOR (MALE) 8P	1	
PS3001		VJS2961A030	CONNECTOR (FEMALE) 30P	1	
PS3002		VJS2961A014	CONNECTOR (FEMALE) 14P	1	
PS5001		VJS2961A006	CONNECTOR (FEMALE) 6P	1	
PS6001		VJP3358C016	CONNECTOR (MALE) 16P	1	
Q1001		2SB1202-S	TRANSISTOR	1	
Q1002		2SB1073	TRANSISTOR	1	
Q1003		2SB1202-S	TRANSISTOR	1	
Q1004		2SD1624-S	TRANSISTOR	1	
Q1005		2SB1073	TRANSISTOR	1	
Q1006		2SB970X	TRANSISTOR	1	
Q1061,62		2SB956-QR	TRANSISTOR	2	
Q1063		2SD1483	TRANSISTOR	1	
Q2101		2SD1819	TRANSISTOR	1	
Q3001		2SB970X	TRANSISTOR	1	
Q3003		2SC4627	TRANSISTOR	1	
Q3004		2SD2216	TRANSISTOR	1	
Q3006		2SD2216	TRANSISTOR	1	
Q3008,09		2SC4627	TRANSISTOR	2	
Q3010		2SC3931	TRANSISTOR	1	
Q3011		2SB1462	TRANSISTOR	1	
Q3012		2SD2216	TRANSISTOR	1	
Q3014		2SB1462	TRANSISTOR	1	
Q3016		2SD1819	TRANSISTOR	1	
Q3017		2SB1218	TRANSISTOR	1	
Q3018		2SB1462	TRANSISTOR	1	
Q3019,20		2SB1218	TRANSISTOR	2	
Q3021		2SC3938	TRANSISTOR	1	
Q3022		2SB970X	TRANSISTOR	1	
Q3025		2SD1819	TRANSISTOR	1	
Q3026,27		2SD2216	TRANSISTOR	2	
Q3028		2SB1219	TRANSISTOR	1	
Q3801		2SD2216	TRANSISTOR	1	
Q3802		2SB1218	TRANSISTOR	1	
Q3803		2SB1462	TRANSISTOR	1	
Q3804		2SB970X	TRANSISTOR	1	
Q3808		2SB970X	TRANSISTOR	1	
Q3809,10		XP1554	TRANSISTOR	2	
Q4001		2SB1220	TRANSISTOR	1	
Q4002,03		2SD1819A	TRANSISTOR	2	
Q4004		2SD602-R	TRANSISTOR	1	
Q4005		2SB970X	TRANSISTOR	1	
Q4006		2SD2216	TRANSISTOR	1	
Q4012		2SD1819	TRANSISTOR	1	
Q4013,14		2SD1328	TRANSISTOR	2	
Q4015		2SD1819	TRANSISTOR	1	
Q4017		2SD1819	TRANSISTOR	1	
Q4018		2SB1218	TRANSISTOR	1	
Q4501		2SD1328	TRANSISTOR	1	
Q4502,03		XP4601	TRANSISTOR-RESISTOR	2	
Q5001,02		XN4504	TRANSISTOR-TRANSISTOR	2	
Q5003		2SB970X	TRANSISTOR	1	
Q5004,05		2SA812	TRANSISTOR	2	
Q5006,07		XN4504	TRANSISTOR-TRANSISTOR	2	
Q5008,09		2SD1328	TRANSISTOR	2	
Q5010		2SB970X	TRANSISTOR	1	
Q5501,02		2SD1819	TRANSISTOR	2	
Q5509		2SD2216	TRANSISTOR	1	
Q5513		2SB1218	TRANSISTOR	1	
Q5514		2SD1819	TRANSISTOR	1	
Q6002		2SD1820-R	TRANSISTOR	1	
Q6003		XN1213	TRANSISTOR-TRANSISTOR	1	
Q6004		2SB970X	TRANSISTOR	1	
Q6005		2SD1819	TRANSISTOR	1	
Q6006		2SD2216	TRANSISTOR	1	
Q6007		2SB1218	TRANSISTOR	1	
Q6008		2SD1819	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q6009		2SD1823	TRANSISTOR	1	
Q6010		2SD1328	TRANSISTOR	1	
Q6012		2SD1819	TRANSISTOR	1	
Q6201,02		2SD1819	TRANSISTOR	2	
QR1002		UN5214	TRANSISTOR-RESISTOR	1	
QR1006		XN1501	TRANSISTOR-TRANSISTOR	1	
QR1061		UN5115	TRANSISTOR-RESISTOR	1	
QR3001		UN9212	TRANSISTOR-RESISTOR	1	
QR3002		UN5213	TRANSISTOR-RESISTOR	1	
QR3004		UN9211	TRANSISTOR-RESISTOR	1	
QR3009		UN9212	TRANSISTOR-RESISTOR	1	
QR3011		UN9212	TRANSISTOR-RESISTOR	1	
QR3013		UN9212	TRANSISTOR-RESISTOR	1	
QR3014		UN5212	TRANSISTOR-RESISTOR	1	
QR3016		UN9212	TRANSISTOR-RESISTOR	1	
QR3018,19		UN5212	TRANSISTOR-RESISTOR	2	
QR3023		XN1501	TRANSISTOR-TRANSISTOR	1	
QR3024,25		UN5212	TRANSISTOR-RESISTOR	2	
QR3206		UN5212	TRANSISTOR-RESISTOR	1	
QR3801		UN5213	TRANSISTOR-RESISTOR	1	
QR3807		UN5213	TRANSISTOR-RESISTOR	1	
QR3901-03		UN5213	TRANSISTOR-RESISTOR	3	
QR4001		XN4312	TRANSISTOR-TRANSISTOR	1	
QR4002		UN5213	TRANSISTOR-RESISTOR	1	
QR4003		UN5210	TRANSISTOR-RESISTOR	1	
QR4004		UN9213	TRANSISTOR-RESISTOR	1	
QR4005		UN511F	TRANSISTOR-RESISTOR	1	
QR4006		UN5213	TRANSISTOR-RESISTOR	1	
QR4008		UN5217	TRANSISTOR-RESISTOR	1	
QR4009		UN5113	TRANSISTOR-RESISTOR	1	
QR4010		UN9213	TRANSISTOR-RESISTOR	1	
QR4011		UN5213	TRANSISTOR-RESISTOR	1	
QR4502		UN5110	TRANSISTOR-RESISTOR	1	
QR4505		UN5215	TRANSISTOR-RESISTOR	1	
QR5001		UN9213	TRANSISTOR-RESISTOR	1	
QR5002,03		UN5212	TRANSISTOR-RESISTOR	2	
QR5004		XP1213	TRANSISTOR-RESISTOR	1	
QR5005		UN5213	TRANSISTOR-RESISTOR	1	
QR5601		UN9212	TRANSISTOR-RESISTOR	1	
QR6001		UN9213	TRANSISTOR-RESISTOR	1	
QR6002		UN2130X	TRANSISTOR-RESISTOR	1	
QR6003		UN9212	TRANSISTOR-RESISTOR	1	
QR6004		XN4130X	TRANSISTOR-RESISTOR	1	
QR6005		UN5112	TRANSISTOR-RESISTOR	1	
QR6007		UN9213	TRANSISTOR-RESISTOR	1	
QR6008		UN5213	TRANSISTOR-RESISTOR	1	
QR6010		UN5112	TRANSISTOR-RESISTOR	1	
QR6011,12		UN9112	TRANSISTOR-RESISTOR	2	
QR6013		UN521E	TRANSISTOR-RESISTOR	1	
QR6015		UN5211	TRANSISTOR-RESISTOR	1	
QR6017		UN5213	TRANSISTOR-RESISTOR	1	
QR6018		UN5211	TRANSISTOR-RESISTOR	1	
R1001		ERJ6GEYG682	M.REISITOR CH 1/10W 6.8K	1	
R1002		ERJ6GEYG202	M.RESISTOR CH 1/10W 2K	1	
R1003		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1004		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R1005		ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	1	
R1006		ERJ6GEYG272	M.RESISTOR CH 1/10W 2.7K	1	
R1007		ERJ8GEYJ101	M.RESISTOR CH 1/8W 100	1	
R1008		ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R1009		ERJ6GEYG152	M.RESISTOR CH 1/10W 1.5K	1	
R1012		ERJ3GEYG163	M.RESISTOR CH 1/16W 16K	1	
R1013		ERJ3GEYG393	M.RESISTOR CH 1/16W 39K	1	
R1014,15		ERJ6GEYG182	M.RESISTOR CH 1/10W 1.8K	2	
R1016		VRE0034E153	M.RESISTOR CH 1/10W 15K	1	
R1017		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1018		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1019		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1020		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1021		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R1022		ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1023	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R1024	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1025,26	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R1027	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R1029	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1030	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R1031	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R1032,33	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R1034	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1035	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1036	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1037	ERJ3GEYG470	M.RESISTOR CH 1/16W 47	1	
R1061	ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R1062	ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R1063	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1064,65	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R1066	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1067	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R1068	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1105	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1106,07	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R1108	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2101	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R2102-04	ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	3	
R2105	ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2106	ERJ8GEYJR47	M.RESISTOR CH 1/8W 0.47	1	
R2107	ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R2108	ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R2109	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2110	ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R2111	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2112	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2113	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2114	ERJ8GEYJ1R0	M.RESISTOR CH 1/8W 1	1	
R2115	ERJ8GEYJR47	M.RESISTOR CH 1/8W 0.47	1	
R2116,17	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R2118	ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R2119	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2121	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2122	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2123	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2124	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R2125	ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R2126	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2130	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3001	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3002	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3003,04	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R3005	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R3006	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3007	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R3008	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3010	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3011	ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3012	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3013	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3014,15	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3016	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3017	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R3018	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3019	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3021	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3022	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3023	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3024	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3025	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3026	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3028	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3030	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3031	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R3032	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3033	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3037	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3041	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3042	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R3043	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3045	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3046	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3047	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3049	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3051	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3052	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3054	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3055	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3056	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3059	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3060-62	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	3	
R3063	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3064	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3068,69	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3070	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3071	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3072	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3073	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3074,75	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3076	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3077	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3078	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3079	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3080	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3081	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3082	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3087	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3089	ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R3090	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3091	ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3098	ERJ3GEYJ106	M.RESISTOR CH 1/16W 10M	1	
R3102	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3103	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3104	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3107	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3109	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3112	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3113	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3115	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3117,18	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R3119	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3121	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3122	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3123	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3124	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3127	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R3128	ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R3129	ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R3135	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3136	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3137	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3142	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3144,45	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R3148	ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R3149	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3150	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3152	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3153	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3154	ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3155	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3156	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3157	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3160	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3162,63	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R3166	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3167	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3168	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3169	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3170	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R3171	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3201	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3202	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3203	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3221,22	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3226		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3227		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3228,29		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R3801,02		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R3803		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3804		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3806		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3807		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3809		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3810,11		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R3812		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3813		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3814		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3815		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3816		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3818,19		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3820,21		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R3822-25		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	
R3832		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3838,39		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R3840		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3841		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3843		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3844		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3845		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3846-49		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	
R3901-03		ERJ3GEYJ603	M.RESISTOR CH 1/16W 68K	3	
R4001		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4002		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4003		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4004		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4005		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4006		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R4007		ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R4008		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R4009		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4010		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R4011		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R4012		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R4013		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4014		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4015		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4016,17		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R4018		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R4019		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4020		ERJ3GEYJ390	M.RESISTOR CH 1/16W 39	1	
R4021		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R4022		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4023		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4024		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4025		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4026		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R4030,31		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R4032		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4033		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4034		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4037		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4041		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4043		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2M	1	
R4046,47		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	2	
R4059,60		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R4061,62		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R4063,64		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R4065		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R4067		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R4068		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R4069		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R4070		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4071,72		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R4073		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R4074		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R4075,76		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R4077		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R4078		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R4079,80		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4081,82		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R4085		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4089,90		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2	
R4096		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4501,02		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	2	
R4503,04		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	2	
R4505		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R4506		ERJ6GEYJ270	M.RESISTOR CH 1/10W 27	1	
R4507		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4509		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R4510		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R4511		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4512		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4513-16		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	4	
R4518		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R4519		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4520		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R4521		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4522		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4523		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R4524		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4525		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4526		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R4527		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4528		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R4529		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R4531		ERJ6GEYJ270	M.RESISTOR CH 1/10W 27	1	
R4532		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4533		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4534		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4535		ERJ8GEYJ330	M.RESISTOR CH 1/8W 33	1	
R4536		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4537		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4538		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4539		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R4540		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4541		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R5001		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5002		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R5003		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5004-07		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	4	
R5008-11		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	4	
R5012		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R5013		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5014		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R5015		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R5016-19		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	4	
R5020-23		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	4	
R5024		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R5025		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R5026		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R5027		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5028		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R5029,30		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	2	
R5031		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R5032		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R5033,34		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R5035		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R5036		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5037		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R5038		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5039		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R5040-42		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R5043-45		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	3	
R5046-48		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	
R5049		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R5050		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R5051		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R5052		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R5053		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R5054		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5055		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R5066-71		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	6	
R5074		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5501		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R5502	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R5503	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5514,15	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R5516	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R5517	ERJ3GEYJ601	M.RESISTOR CH 1/16W 600	1	
R5530	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5532	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5544	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5545	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R5554	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R5557,58	ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	2	
R5562	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R5564	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5565	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5566	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R5567	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5570	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R5571,72	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R5590	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R5591	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R5592	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R5593	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5594	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R5596	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R5601	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R5602	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R5603	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R5604	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R5611	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6001,02	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6003,04	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	2	
R6005	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R6006,07	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	2	
R6008	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6009	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R6014	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6015	VRE0067G473	M.RESISTOR 47K	1	
R6016	VRE0067G153	M.RESISTOR 15K	1	
R6017,18	ERJ8GEYJ101	M.RESISTOR CH 1/8W 100	2	
R6019-21	ERJ8GEYJ151	M.RESISTOR CH 1/8W 150	3	
R6022	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6023	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6024	ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R6025,26	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6027	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6028-30	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R6031	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6032-36	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	5	
R6037	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6038-42	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	5	
R6043	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6044	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6045	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6046-49	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	4	
R6050	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6051-53	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	3	
R6054-62	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	9	
R6063	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R6065,66	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	2	
R6067,68	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6069	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6070	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6071	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6072-78	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	7	
R6079	ERJ8GEYJ100	M.RESISTOR CH 1/8W 10	1	
R6080,81	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R6082	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6083,84	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R6085,86	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R6087	ERJ8GEYJ221	M.RESISTOR CH 1/8W 220	1	
R6088,89	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6090	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6091	ERJ8GEYJ271	M.RESISTOR CH 1/8W 270	1	
R6092	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R6093	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R6095	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6096	ERJ8GEYJ331	M.RESISTOR CH 1/8W 330	1	
R6097	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6098	ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R6099	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R6100	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R6101	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R6102	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6103	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R6104	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6105	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6106,07	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6108	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6109-12	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	4	
R6113	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6114,15	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6116	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6121	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6122	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6125,26	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6127	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6128	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6129	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6130	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
R6201	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6202	ERJ3GEYJ114	M.RESISTOR CH 1/16W 110K	1	
R6203	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6204	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R6205-07	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	3	
R6208	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6209	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6210,11	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6212	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6213	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R6214	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6215,16	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R6217	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6218	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6219	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R6220	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
T1001	ELL04T032R	TRANSFORMER	1	
T4001	E1Q6QB006	TRANSFORMER	1	
VR1001	EVM7JSX30B52	V.RESISTOR 500	1	
VR1002	EVM7JSX30B13	V.RESISTOR 1K	1	
VR1003	EVM7JSX30BE2	V.RESISTOR	1	
VR3001	EVM7JSX30B13	V.RESISTOR 1K	1	
VR3004	EVM7JSX30B14	V.RESISTOR 10K	1	
VR3005	EVM7JSX30B23	V.RESISTOR 2K	1	
VR3006	EVM7JSX30D14	V.RESISTOR 10K	1	
VR3007	EVM7JSX30B54	V.RESISTOR 50K	1	
VR3008	EVM7JSX30B13	V.RESISTOR 1K	1	
VR3802	EVM7JSX30B13	V.RESISTOR 1K	1	
VR4001	EVM7JSX30B52	V.RESISTOR 500	1	
VR4002	EVM7JSX30B54	V.RESISTOR 50K	1	
VR4501,02	EVM7JSX30B23	V.RESISTOR 2K	2	
VR5501	EVM7JSX30B23	V.RESISTOR 2K	1	
VR6201	EVM7JSX30B15	V.RESISTOR 100K	1	
X3801	VSX0444	CRYSTAL OSCILLATOR	1	
X5501	VSX0419	CRYSTAL OSCILLATOR	1	
X6002	VSX0461	CRYSTAL OSCILLATOR	1	
X6003	VSX0510	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VSC3639	POWER SHIELD COVER (A)	1	
	VSC3640	POWER SHIELD COVER (B)	1	
	VSC3630	HEAD AMP SHIELD COVER (A)	1	
	VSC3631	HEAD AMP SHIELD COVER (B)	1	
	VSC4253	POWER HEAT SINK	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VMZ2390	POWER INSULATION SHEET (A)	1	
		VMZ2392	POWER INSULATION SHEET (C)	1	
		VEE7790	WIRE CABLE	1	
		VKC0412	C.B.A. POST	1	
		VMZ2084	POWER INSULATION SHEET	1	
		VMX2571	PC SUPPORT	2	
		XTB2+5G	SCREW	2	
	■	VEP03D31A	TBC C.B.A.		(RTL)
					INCLUDED IN MAIN
					C.B.A.(VEP03D30A).
C3501		ECST0JX226Z	T.CAPACITOR CH 6.3V 22U	1	
C3502,03		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C3504		ECST1AY475Z	T.CAPACITOR CH 16V 4.7U	1	
C3505		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C3506		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3507		ECUM1H103KBM	C.CAPACITOR CH 50V 0.01U	1	
C3508		ECUX1C223KBV	C.CAPACITOR CH 16V 0.022U	1	
C3509		ECST1AY475Z	T.CAPACITOR CH 16V 4.7U	1	
C3510		ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C3511		ECST0JC476Z	T.CAPACITOR 6.3V 47U	1	
C3512		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C3513		ECST1AY475Z	T.CAPACITOR CH 16V 4.7U	1	
C3514		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C3515		ECUM1H103JCM	C.CAPACITOR CH 50V 0.01U	1	
C3516		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3517		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C3518		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C3519		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C3520		ECUX1C153KBV	C.CAPACITOR CH 16V 0.015U	1	
C3521		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3522		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3523		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3524,25		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C3526		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3527		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C3528		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3529		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C3530-33		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C3534		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C3535		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3536,37		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C3538		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3539		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3540		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3541		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3542		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3543		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3544		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3545		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3546		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3547		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C3548		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3549		ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C3550		ECST0JC476Z	T.CAPACITOR 6.3V 47U	1	
C3551		ECST1DX475Z	T.CAPACITOR 20V 4.7U	1	
C3552		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3553		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3554		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3556		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C3561		ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C3562		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3563		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C3580		ECUX1C683KBV	C.CAPACITOR CH 16V 0.068U	1	
D3501		MA143A	DIODE	1	
D3502		1SS355	DIODE	1	
D3503		MA143A	DIODE	1	
D3504		1SS355	DIODE	1	
FL3501		VLF1030	FILTER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC3501		TA8868AF	IC	1	
IC3502		MN3802AS	IC	1	
IC3503		MN3051MS	IC	1	
IC3504		BU4066BCFV	IC	1	
IC3505		TA75W01FU	IC	1	
L3501		ELJPA100KB	COIL 10UH	1	
L3502		ELJFA100JB	COIL	1	
L3503		ELJFA151JB	COIL	1	
L3504		VLQ0426J470	COIL 47UH	1	
L3505		ELJPA100KB	COIL 10UH	1	
L3506,07		ELJPA150KB	COIL 15UH	2	
L3508,09		ELJFC680JB	COIL 68UH	2	
L3510		VLQ0426J470	COIL 47UH	1	
L3511		VLQ0426J5R6	COIL 5.6UH	1	
PP3501		VJP2963C014	CONNECTOR (MALE) 14P	1	
Q3501		2SD1819A	TRANSISTOR	1	
Q3502-04		2SB1218A	TRANSISTOR	3	
Q3505		2SD1819A	TRANSISTOR	1	
Q3506		2SB970X	TRANSISTOR	1	
Q3507		2SD1819A	TRANSISTOR	1	
Q3508,09		2SB1218A	TRANSISTOR	2	
Q3510,11		2SD1819A	TRANSISTOR	2	
Q3513		2SD1819A	TRANSISTOR	1	
Q3514		2SB1218A	TRANSISTOR	1	
Q3515		2SC3938	TRANSISTOR	1	
Q3516-18		2SD1819A	TRANSISTOR	3	
Q3519		2SC3931	TRANSISTOR	1	
Q3520		2SD1819A	TRANSISTOR	1	
QR3501		UN5212	TRANSISTOR-RESISTOR	1	
QR3503		UN5212	TRANSISTOR-RESISTOR	1	
QR3504		UN5211	TRANSISTOR-RESISTOR	1	
R3501,02		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R3503		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3504		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3505		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3506		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3508		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R3509		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3510		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R3511		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3512		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R3513		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R3514		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3515		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3516		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3517		VRE0071E113	M.RESISTOR CH 1/10W 11K	1	
R3518		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R3519		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3520		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3521		ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R3522		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R3523		ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R3524		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3525		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3526		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3527,28		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3530		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3531,32		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	2	
R3533		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R3534		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3535		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3536		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3537		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3538		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3539		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3540		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R3541		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3542		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R3543		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3544		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3545		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3546		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3547		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R3548		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3549		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R3550		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3551		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3552		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3553		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3554		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3555,56		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R3560		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3561		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R3562		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3563		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3564		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3565		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3566		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3567,68		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R3569		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3570		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3571		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3572		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R3573		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3574,75		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3580,81		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R3582		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
VR3501		EVM7JSX30B14	V.RESISTOR 10K	1	
VR3503		EVM7JSX30B53	V.RESISTOR 5K	1	
VR3504		EVM7JSX30B13	V.RESISTOR 1K	1	
VR3505		EVM7JSX30B24	V.RESISTOR 20K	1	
	■	VEP06817A	VTR OPERATION (A) C.B.A.		(RTL)INCLUDING THE
					VTR OPERATION (D)
					C.B.A.(VEP06847B).
D6505		MA165VT	DIODE	1	
D6507		RR3668S	DIODE	1	
D6513-16		MA165VT	DIODE	4	
FP6501		VJS2135	CONNECTOR (FEMALE)	1	
SW6508,09		EVQQSB04B	SWITCH	2	
SW6511		ESD11V120	SWITCH	1	
SW6514,15		EVQQSB04B	SWITCH	2	
SW6516		EVQ70F02K	SWITCH	1	
SW6517		ESD100121AQ	SWITCH	1	
			MISCELLANEOUS		
		VWJ06C0040AA	FLAT CARD CABLE	1	
		VWJ0610	FLAT CARD CABLE	1	
	■	VEP06847B	VTR OPERATION (B) C.B.A.		(RTL)INCLUDED IN
					VTR OPERATION (A)
					C.B.A.(VEP06817A).
D6501-04		MA165VT	DIODE	4	
D6506		MA165VT	DIODE	1	
D6508		MA165VT	DIODE	1	
D6510-12		MA165VT	DIODE	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
SW6501-07		EVQ21504K	SWITCH	7	
SW6510		VSTO098	SWITCH	1	
SW6512		EVQ21504K	SWITCH	1	
	■	VEP03D37A	AV JACK (A) C.B.A.		
C1501		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1503		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C1505		ECUM1H102KBM	C.CAPACITOR CH 50V 1000P	1	
C1506		ECUM1H222KBM	C.CAPACITOR CH 50V 2200P	1	
C1507		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C1508		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C1509		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
D1501,02		MA153	DIODE	2	
FP1501		VJS2139	CONNECTOR (FEMALE)	1	
L1503,04		VLQ0555	COIL	2	
P1501		VJP1244T	CONNECTOR (MALE) 4P	1	
R1502,03		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	2	
R1504		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
SW1501		VSS0187	SWITCH	1	
SW1502		VSS0186	SWITCH	1	
			MISCELLANEOUS		
		VEJ1288	AV JACK PLATE	1	
		VGU3435	KNOB	2	
	■	VEP03957C	AV JACK (B) C.B.A.		(RTL)
D1603		31DQ04FC6	DIODE	1	
D1605		MA715	DIODE	1	
L1601,02		VLP0113	COIL	2	
P1001		VJS1229T	CONNECTOR (FEMALE)	1	
P1601		VJP3318A006	CONNECTOR (MALE) 6P	1	
P1601		VJS3172B006	CONNECTOR (FEMALE) 6P	1	
P1602		VJP1231T	CONNECTOR (MALE) 4P	1	
P1604		VJP1229R	CONNECTOR (MALE) 2P	1	
P6008		VJS3172B006	CONNECTOR (FEMALE) 6P	1	
PJ1605		VJP1253	CONNECTOR (MALE) 2P	1	
R1606		VSF0059	FUSE	1	<!>
R1607		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
21601		VL2020/1HF	LITHIUM BATTERY	1	
			MISCELLANEOUS		
		VEF8184	WIRE CABLE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEE7788	WIRE CABLE	1	
	■	VXU1138	ZOOM BUTTON C.B.A.		(RTL)INCLUDING THE
					S/S C.B.A.(VEK5869),
					SUB S/S C.B.A.
P305		VJS3172B005	CONNECTOR (FEMALE) 5P	1	(VEK5870).
			MISCELLANEOUS		
		VXU1120	ZOOM BUTTON UNIT	1	
		VEE7782	WIRE CABLE	1	
	■	VEK5869	S/S C.B.A.		(RTL) INCLUDED IN
			(Page:26)		ZOOM BUTTON C.B.A.
					(VXU1138).
SW1890		EVQQSU04W	SWITCH	1	
	■	VEK5870	SUB S/S C.B.A.		(RTL) INCLUDED IN
					ZOOM BUTTON C.B.A.
					(VXU1138).
SW1891		EVQQSU04W	SWITCH	1	
	■	VEK5865	CHARA/GENE C.B.A.		(RTL)
P1402		VJJ0163	CONNECTOR	1	
P3001		VJS3172B005	CONNECTOR (FEMALE) 5P	1	
			MISCELLANEOUS		
		VEE7793	WIRE CABLE	1	
	■	VEK5868	FE HEAD C.B.A.		(RTL)
C1901		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C1902		VCYD1E103MR	S.CAPACITOR 25V 0.01U	1	
C1903		VCYD1E682KH	S.CAPACITOR 25V 6800P	1	
C1904		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
L1901		VLQEL05F221K	COIL 220UH	1	
Q1901		2SC2603AE2F	TRANSISTOR	1	
R1901		ERDS2TJ822	C.RESISTOR 1/4W 8.2K	1	
T1901		VLQ0586	TRANSFORMER	1	
	■	VES0689	MECHANISM CONNECTION C.B.A.		(RTL)
			(MODE SELECT SWITCH UNIT)		
			MISCELLANEOUS		
		VMX1200	SENSOR SPACER	1	
		ON2170-RLG	PHOTO COUPLER	1	
		VSS0193	MODE SWITCH	1	
		VJP3318A008	CONNECTOR (MALE) 8P	1	
		VEE2015	WIRE CABLE	1	
		VJP1229R	CONNECTOR (MALE) 2P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks